

THE RELATIONSHIP OF COUNSELOR'S VISUAL AND AUDITORY DISCRIMINATION
ABILITIES AND PERCEIVED CLIENT SATISFACTION

By

NANCY ANN SLICNER SPISSO

A DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF
THE UNIVERSITY OF FLORIDA
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1975

To Baba, my grandmother, who believed that women should make babies
and bread.

ACKNOWLEDGMENTS

The writer wishes to express her sincere appreciation to Dr. Richard H. Johnson who served as committee chairman until his departure and to Dr. Joseph Wittmer, Chairman for the final stages of the study. Both men were sources of invaluable assistance. Special thanks go to committee members Dr. Larry C. Loesch, who earned my respect and admiration, Dr. Gustave Newman and Dr. Benjamin Barger for their encouragement.

This study could not have been completed without the help of my husband, Ward, who supported all of my efforts and had a constant belief in my abilities; my parents, Edward and Mary Slicner, who have always encouraged my educational efforts; and special friends, Bill Weikel, Rick Davis and Fred Piercy for constructively reviewing the early manuscripts. Also thanks go to Charlie Schomer and Bill Hardman who handled the computer programs and to Barbara Rucker for her excellent job in typing the manuscript.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
ABSTRACT	vii
CHAPTER I	1
Introduction	1
Research Questions	2
Definitions	3
Need for the Study	4
Theoretical Background	9
Auditory Processes	10
Visual Processes	12
Summary	13
CHAPTER II	15
Review of the Literature	15
Auditory Dimensions	15
Visual Dimensions	18
Client Ratings	22
External Judges	22
CHAPTER III	24
Research Methodology	24
Sample	24
Instrumentation	25
Procedure	31
Hypotheses	32
Statistical Procedures	33
CHAPTER IV	36
Results	36
Variable Data	48
CHAPTER V	52
Conclusions	52
Summary	52

	Page
Discussion	54
Limitations	57
Recommendations	57
Conclusion	58
APPENDIX A	59
APPENDIX B	64
APPENDIX C	66
APPENDIX D	70
APPENDIX E	72
APPENDIX F	73
APPENDIX G	74
REFERENCES	75
BIOGRAPHICAL SKETCH	83

LIST OF TABLES

	Page
TABLE 1 - Number of Subjects Scoring in Each Category on Inferred Meanings Tests	37
TABLE 2 - Partial Correlation Coefficients on Relationships Between Non-Experimental Counselor Scores on Four Instruments	38
TABLE 3 - Results of the Associated Values of t Found for the Partial Correlations Obtained on Scores of Non-experienced Counselors on Four Instruments	39
TABLE 4 - Partial Correlation Coefficients on Relationships Between Experienced Counselors' Scores on Five Instruments	40
TABLE 5 - Results of the Associated t Values Found for the Partial Correlations Obtained on the Scores of Experienced Counselors on the Four Instruments	40
TABLE 6 - Partial Correlation Coefficients on Relationships Between All Subjects' Scores on Four Instruments	41
TABLE 7 - Results of the Associated t Values Found for the Partial Correlations Obtained on the Scores of All Subjects on All Four Instruments	42
TABLE 8 - Second Order Partial Correlation Coefficients on Relationships Between Experienced Counselors' Scores on Three Variables	47
TABLE 9 - Results of the Associated t Values Found for the Partial Correlations Obtained on the Scores of Experienced Counselors on Three Variables	47
TABLE 10 - Comparison of Mean Scores on the Inferred Meanings Test - Audio.	49
TABLE 11 - Comparison of Mean Scores on the Inferred Meanings Test - Video	49
TABLE 12 - Comparison of Mean Scores for the Barrett-Lennard Relationship Inventory	50
TABLE 13 - Comparison of Mean Scores for the Client Depth of Self Exploration	51

Abstract of Dissertation Presented to the Graduate Council
of the University of Florida in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

THE RELATIONSHIP OF COUNSELOR'S VISUAL AND AUDITORY DISCRIMINATION
ABILITIES AND PERCEIVED CLIENT SATISFACTION

By

Nancy Ann Slicner Spisso

August, 1975

Chairman: Joe Wittmer

Major Department: Counselor Education

This study investigated the relationship between auditory and visual discrimination skills in both experienced and non-experienced counselors and subsequent client depth of self exploration and perception of the counseling relationship. A total of thirty-four subjects participated in the research. Length of professional experience as a counselor was also analyzed as a contributing variable. The non-experienced subjects were students enrolled in a required Counselor Education course and had no formal counseling experience. The experienced subjects were professional counselors whose experience ranged from six months to twelve years. Four instruments were used to measure the variables involved: the Inferred Meanings Test - Audio, which measures auditory discrimination; the Inferred Meanings Test - Video, which measures visual discrimination; the Barrett-Lennard Relationship Inventory, which is a questionnaire completed by the client on the counseling relationship; and the Client Depth of Self Exploration. This procedure involves the rating of counseling tapes by external Judges on the degree of client discussion of personally meaningful material.

The results of the study indicated that experienced counselors were better at discriminating auditory and visual information than were non-experienced counselors. The experienced counselors, with a high degree of skill in auditory discrimination, established more positive relationships with their clients than did the non-experienced counselors in the study. The clients of those experienced counselors with strong auditory discrimination skills were able to discuss more personally meaningful material than were clients of the other non-experienced subjects. Auditory and visual discrimination were related skills for the subjects in this study. The length of the counselor's actual counseling experience was not a significant factor in discrimination skills, client perception of the counseling relationship or client depth of self exploration.

CHAPTER I

INTRODUCTION

The focus of this investigation was on two of the sensory channels--auditory and visual. The purpose was to determine the degree of relationship which existed between the accuracy of sensory discriminations made by counselors in these two modalities and the resultant client satisfaction with the counseling process and depth of self-exploration. There is documentation in the counseling literature that what the counselor is appears as a function of what has been perceived (Combs, 1969; Combs and Soper, 1963; Rotter, 1971). Those perceptions are based upon sensory information transmitted by the client through one or more sensory modalities.

Helping relationships are interpersonal processes. Any interpersonal process is based upon perceptions. Carkhuff asserted " . . .all science begins with the sensory experiences of the scientist . . .and that the perceptions of the perceiver must be studied" (In Ivey, 1971, p. viii).

The receiving of data from the client constitutes an essential ingredient in the counseling process. The counselor must have the ability to receive sensory information through any one or more sensory receptors. This receptual ability is generally called acuity. Once such stimuli have been received, the counselor can discriminate among impressions at a more complex cognitive level. The reception of sensory information is the first stage in counseling, but an extremely

vital one. "A word is not a word unless the user gives meaning to it. A perception is not a perception unless the perceiver provides it with feeling and substance" (Solley and Murphy, 1960, p. 74).

The three general areas researched were:

1. the ability of counselors to discriminate among visual information,
2. the ability of counselors to discriminate among auditory information,
3. the relationship between these discrimination abilities and client satisfaction and depth of self exploration.

Data for this study was collected via specific instruments which measured the capacity to discriminate among sensory information in both channels. Auditory acuity was estimated via a simple tone test while visual acuity was assessed through a Snellen eye test. Separate formats of the Inferred Meanings Test were used to investigate the different levels of auditory or visual discrimination. Subjects for this study included students enrolled in Counseling Theories and Lab (EDC 614/620) offered by the Department of Counselor Education at the University of Florida and counselors at Student Mental Health, University of Florida, and local mental health agencies. A client satisfaction scale (Barrett-Lennard Relationship Inventory) was given to their respective clients. In addition, audio tapes of the counseling sessions were rated by external judges using the client Depth of Self Exploration (Truax and Carkhuff, 1967).

Research Questions

This research was an attempt to investigate the relationship of accurate auditory and visual discriminations to client satisfaction with the counseling process and the client's depth of self exploration.

The following research questions were examined:

1. What is the relationship between auditory and visual discrimination when the effects of both auditory and visual acuity have been removed?
2. What effect does a counselor's accuracy of visual discrimination have on a client's satisfaction with the counseling process when the effects of visual acuity have been removed?
3. What effect does a counselor's accuracy of auditory discrimination have on a client's satisfaction with the counseling process when the effects of auditory acuity have been removed?
4. Is there a relationship between accuracy of auditory or visual discrimination ability and ratings given by external judges on the dimensions of the Client Depth of Self Exploration when the effects of auditory or visual acuity have been removed?

Definitions

For the present purposes of this research, the following terms were defined as such:

1. Auditory perception: The ability to interpret or organize the sensory data received through the ear.
2. Auditory acuity: The degree to which a person receives sound energy through the ear mechanism.
3. Discrimination: "The process of making a choice reaction in which contextual conditions play a decisive role" (Bartley, 1969, p. 12).
4. Paralanguage: Conditions which are characteristic of vocal changes, tone, pitch, intensity, hesitations, gaps or pauses.
5. Perception: The process of organizing or interpreting data obtained through the sense.
6. Kinesics: Changes in body status; facial grimaces, muscular tension or movement; postural features.
7. Sensory modalities: The physical pathways through which an individual receives information.
8. Visual acuity: The degree to which a person receives light energy through the optic apparatus.

9. Visual perception: The ability to interpret or organize the sensory data received through the eyes.

Need for the Study

A need exists to find more effective ways of training counselors in facilitating interpersonal processes and in being more sensitive to the client's messages, especially as counselors attempt to prove their accountability to funding agencies as well as the public. Training programs for the past twenty years have focused primarily on the responses which the counselor needs to make in order to establish conditions in which the client can grow and change (Rogers, 1951, 1957, 1959, 1965, 1970; Truax, 1961, 1962; Truax and Carkhuff, 1967). Those responses can only result when the counselor has correctly received all of the data which the client sends and then makes the most appropriate discriminations and associations. It is highly important that counselors learn how to hear, how to discriminate among auditory and visual meanings; how to correctly perceive differences in vocal tones and body movements. When this information has been perceived correctly, the counselor can make the most appropriate response based upon the knowledge of the correct emotional state of the client. Carkhuff stated that the traditional training programs in both clinical and counseling areas have not "established their efficacy in terms of client benefits" (Berenson and Carkhuff, 1967, p. 8).

When counselors have a greater understanding of what specific nonverbal cues may mean, they will be enhancing their counseling skills and owning another way of "hearing" the feelings that the

client is expressing (Harman, 1971). While much of the support for attention to body cues comes from experiential and Gestalt therapists, even those professing analytic orientations report in their journals studies which relate to similar variables (Berger, 1958; Boomer and Dittman, 1964; Bosanquet, 1970; Deutsch, 1947, 1959; Ekman and Friesan, 1969a; Lewin, 1965; Mahl, 1968; Nacht, 1963). Therapists of all orientations are becoming more interested in any type of information sent by the client, regardless of modality. In this way, the counselor can become more totally aware of all of the interacting factors which affect the client's behavior and emotions. Through the accurate processing of all of the various data, the counselor might have a more complete and accurate mental image of the client.

Care must be taken to view nonverbal cues in the context in which they occur and not to abstract or partial them out to external references (Gladstein, 1972). The counselor cannot begin the actual process of counseling until he or she perceives some type of message through any one of the senses.

If a counselor's discriminations of data perceived through these two channels is inaccurate, subsequent effects on the counseling process may be great. "To be able to hear is not necessarily to be able to listen, to be able to see is not necessarily to be able to look" (Johnson and Myklebust, 1967, p. 11). When the counselor misperceives a vocal cue and reacts to that misperception, the client will not feel understood. If the counselor inaccurately perceives the client's body tension and does not respond appropriately, the client may feel that the counselor is not sufficiently aware of the

problem. The client's awareness of the inaccuracy may not even be at a conscious level but may be sufficient to interfere with any future counseling attempts.

A counselor can learn to recognize emotional states by changes in the frequency of the client's words (Gladstein, 1972). In order for this to be true, the counselor must have the ability to perceive those changes accurately. Most studies have operated under what appears to be an unwritten assumption that what the counselor hears or sees is entirely accurate.

Since audition is a relatively abstract method of perceiving, the unique characteristics of the perceiver may attribute various meanings to one sound. When the sounds are destroyed or misperceived by the receiver, the ability to fully comprehend what the individual is attempting to convey is greatly diminished. Counselors stress the ability to accurately understand other persons and must have a greater ability to receive sensory information accurately and to perceive it more according to the manner in which the client intends it, than other persons less involved in interpersonal communications.

To understand the process of receiving auditory information and the consequent accurate discrimination of it in terms of its uniqueness or specificity is an exceptionally powerful tool for counselors. Counselors need training in listening skills so that they are aware of any factors contributing to what the client says. Programs emphasizing openness to auditory information would enable counselors to make more accurate judgments and responses when all available data has been received from the client. The client who is thoroughly understood by the counselor will be able to make progress. That

client, whether it is a child or adult, will feel misunderstood and frustrated when his/her communications are misperceived and distorted by anyone, but more so by a counselor. All people react in some way when their efforts to communicate are misunderstood.

Yet, in an international debate, serious errors are made in interpreting such supposedly simple matters as whether one participant is acting angry or merely bluffing. The sheer frustration of not being able to understand sometimes makes one want to strike out in the feeling that at least the blow will be understood (Hall, 1959, p. 127).

The militants, the activists, the mobs and the angry man, woman or child all take to physical acts when their words are not understood. In teaching counselors how to receive and perceive auditory and visual information more accurately, all interpersonal communication will be made easier. As a profession incorporates and utilizes new training programs, the public becomes aware of it and attempts to tie it in to other sectors of society: the schools, the clubs and the businesses. More people profit from research into message communication than just the counselors.

The sensitive counselor must be aware of not only what the client says, but also of all the slight gestures of hand, changes in facial expressions, tensions in the body which communicate messages of emotional states. Facial expressions alone can communicate acted emotion as well as voice alone (Levitt, 1964). Mehrabian and Ferris (1967) were able to show that judges were more responsive to visual than to auditory cues.

Visual perception is related to the subject's internal frames of reference. What is seen is perceived as unique only in relation to indirect reference systems (Segall et al., 1966). Counselors need to

be aware of how their visual perceptions of the client may be altered by their lack of perspective or awareness of the frame of reference for anchoring such judgments (Sheriff, 1936).

The counselor who sees the client clench his/her fist perceives this as a symbol of a cue of anger only as that visual data confirms or negates other previously learned information. If the counselor is, in fact, extremely angry that day, but the client is not, that gesture may be misperceived. Suppose that the client is aware that his/her hand is shaking and wishes to control it by clenching the fist. The counselor may be projecting his/her own anger and wrongly attributing it to the client, thereby losing touch with what is happening to the client at that moment. Visual perceptions are affected by the "object orientation" of the perceiver (Asch, 1952). There is research evidence that body movements relate to emotional states (Deutsch, 1963, 1966; Ekman and Friesen, 1968). Counselors should be trained to attend to easily overlooked changes in muscular tension, facial grimaces and postural aspects. The interpretation of those visual cues can only occur when the counselor has sufficient data to make a valid inference. This is important to counselors since they must learn to interpret physical actions only in the context of all other available information. They must first perceive it accurately. Traditional counselor education programs have not focused on training perceptual awareness skills. The movement of Gestalt therapy approaches in recent years has greatly facilitated the profession's attention on this important aspect. There are literally thousands of counselors in the field whose training occurred fifteen or twenty years ago. They could profit immensely from an intensive workshop in auditory and visual discrimination training.

Counselors currently in training need to be taught methods of discriminating among visual stimuli. A beginning student counselor often finds it difficult to pay attention to the verbal content, the changes in vocal quality and kinesics of the client at one time. But awareness of all three aspects of the client's current state must be regarded and considered if growth-fostering responses can be made. Counselors should not act on the basis of incomplete information. All data must be considered.

Results from this study will expand our understanding of what specific counselor variables are important in effective counseling. It may be that the dimensions of auditory and visual discrimination are extremely important in the counseling process. If so, then counselor education programs should be training their students to increase their abilities in these areas. If they are relatively unimportant, then other variables must be investigated.

Theoretical Background

Harman (1971) supports the contention that nonverbal acts have specific psychological meanings and thus are important variables to research in counseling. Postures, gestures, voice tones and proxemics (distances) all have meanings which are unique to the person responsible for sending them. Lewin (1965) maintains that therapists should pay more attention to the nonverbal cues being sent by the client during the session and less attention to probing for meaningless answers in the client's past.

Expression is thus objectifiable and afterwards the moments of an expression appear as properties of men, animals, sciences and objects. But once objectified, that expression

becomes capable of representing that which we have at our disposal. The means to represent expression, we have it also with respect to ourselves, in that we can affect our own expression (Straus, 1963, p. 318).

Nonverbal forms of communication may serve to control the social situation clients find themselves in or to sustain or to even replace verbal forms of communicating (Argyle, 1972). The client will demonstrate such cues as the need arises. These forms of message transmission serve an important function,

Perceptions of such a vague character, impressions that almost elude us, support us in reaching certain stations on our road to insight. The smell of a perfume, a gesture of hand, a peculiarity of breathing, as well as articulate confessions and long reports give away secrets. Peculiarities of voice, or glancing, often reveal something that was hidden behind the words and the sentences we hear. They convey a meaning we would have never guessed if we had not absorbed the little asides on the fringes of the stage that accompany the main action. Men speak to us and we speak to them not only with words but also with the little signs and expressions we unconsciously send and receive (Reik, 1948, p. 149).

The counselor's perceptual accuracy does include the ability to make accurate judgments about some aspect of the client (Auger, 1969; Condon and Ogston, 1966; Dinges and Oetting, 1972; Dittman, Parloff and Boomer, 1965; Ekman, 1964; and Eldred and Price, 1958). The additional element which this study attempted to explore is to what degree the accuracy of discriminations affected client satisfaction with the counseling process and depth of self exploration.

Auditory Processes

Counseling involves contact between two or more persons. The communication from one person to another takes place through any one or more sensory organs. In humans, the two primary sensory organs are the eyes and the ears. This study was concerned with these two

modalities. The sounds that humans make are symbols. They are signs which indicate messages to another living thing. "Sounds can be used independently of the reference to the world that perception relates to the person at any given moment" (Bartley, 1969, p. 304).

The ability to accurately perceive auditory signs has importance in counseling because of the great depth and breadth of emotion which any sound can convey. The verbalization "I'm sad" can be substituted for a sigh so clearly understandable in one culture that spoken words are unnecessary.

With a few sounds we designate the heaviest burdens, the furthest distances, the greatest velocities, the "whole worlds" and can therefore in a certain manner deal with that which we cannot grasp directly (Straus, 1963, p. 153).

Auditory reception, or the ability to receive sound energy through the auditory apparatus of the ear involves pressure waves stimulating those specialized receptive cells in the ear. The resultant specialized nerve energies and their effect on the brain result in what is termed hearing (Hochberg, 1968). Sounds are likely to be construed as symbols on our experience. They are often of greater significance to us as the symbol of something than as indications of the existence and location of objects at a given instant (Hochberg, 1968). Pittenger and Smith (1957) contend that the learning of most communication of emotional meanings occurs before the age of six.

The phenomenon of several persons all hearing the same report and later making entirely different accounts is familiar. Judgments are made about things which we have perceived based upon our inherent characteristics, backgrounds, learned information and experiences

(Sheriff, 1936). Research done by Nichols and Stevens (1957) indicates that persons have extraordinarily poor listening skills. They undertook an analysis of the "oldest, the most used and the most important element of interpersonal communication--listening" (p. vii).

Visual Processes

Light energy stimulates the sensory receptive cells in the retina of the eye and sensations of light result. An object is considered before the eye and that energy, the proximal stimuli, is transmitted to the sense organ--the eye. This energy presents the eye with an "optic array and forms an image on the retina which is a mosaic of light sensitive cells" (Hochberg, 1968, p. 529). This output is then transmitted to the optic cortex in the brain for further discrimination. Visual acuity is the ability to see distant objects and to discriminate among them.

Ekman and Friesen (1969) point out that one kind of kinesic behavior--an adaptor--is a vestige of actions no longer necessary for self survival or protection, but which now functions as "leakage" of psychological states. An example of such an adaptor may be a quick, short foot movement during frustration, functioning as a release of aggression.

People are constantly sending signals through the ways they maintain and use parts of their bodies. Gestalt and experiential therapists are vocal in their emphasis on this dimension. Schutz (1971) strongly promotes the relationship between body states and psychology. There is strong evidence that body movements and emotional states are related directly (Deutsch, 1966; Ekman and Friesen,

1968), The counselor can perceive visual information but insufficient research has been done on the accuracy of these perceptions. Evidence in the literature on learning disabilities indicates that auditory and visual perceptual deficiencies account for inadequate performance, not only on academic tasks, but in interpersonal social situations (Lerner, 1971).

Summary

Counselors do not operate in one sensory modality at a time. All sensory data transmitted by the client forms a gestalt for the counselor. If a piece of information is missing, the gestalt is incomplete. A client who is talking (auditory channel) in a flat monotone (inappropriate paralanguage cues) about the death of a close and meaningful person, yet is sitting in a completely relaxed posture (incongruent kinesic cues) offers the counselor an incomplete gestalt. The pieces simply do not fit. The counselor must be on guard for any changes in vocal quality and make accurate discrimination about those changes as they relate to the verbal content. In addition, the counselor must watch for any changes in the client's body posture, tension, or gestures which would communicate affect. Subsequent accurate discriminations of the kinesic component should reinforce or negate the previous information which the counselor has about the client.

Senses work separately and jointly to enable persons to make discriminations about the data being transmitted.

Psychologists have recognized a unity of the individual sense impressions. Seeing and hearing are different only in respect to the difference inherent in that which

is sensed. In the process of experiencing, seeing and hearing, the seen and the heard differentiate themselves quite effectively without requiring any knowledge on our part as to the construction or function of the sense organs (Straus, 1963, p. 204).

It is not necessary to know how perceptual discrimination occurs in the complex neurophysiological sense. It is, however, important for counselors to know that they can increase their skills in these areas and become more effective in their counseling.

Another factor to be considered is the possibility that a counselor may have a real learning disability in one sensory channel. While the field of learning disabilities concentrates primarily on children, it recognizes that adults have similar disabilities but that they have generally learned unconscious methods of coping or adapting. Given the counselor who has a deficit in auditory discrimination, it appears likely that he/she will compensate in visual areas. The reverse is quite true. The counselor who incorrectly perceives auditory stimuli may have learned at an early age to disregard the impressions he/she receives through this channel and rely solely on visual cues. Such a counselor could not discriminate among changes in vocal quality, pitch or intensity which convey emotional meanings. Social perception is an area of interest to those in learning disabilities and includes the

...ability to immediately identify and record the meaning and significance of the behavior of others. The significance of nonverbal behavior has been described by various workers. Some lack the facility to readily perceive meanings conveyed by facial expressions and the actions of others (Johnson and Myklebust, 1967, p. 24).

Thus, the study was intended to explore the relative importance of the variables of auditory and visual discrimination in the counseling process.

CHAPTER II

REVIEW OF THE LITERATURE

Auditory Dimensions

The ability to listen accurately is not an innate skill. It must be developed through training and feedback. A counselor could not accurately facilitate a client's emotional growth if verbal messages are misperceived. Auditory messages are more abstract than visual data since they are generally divorced from spatial realities (Hochberg, 1968). Therefore, they lend themselves to more frequent misinterpretations.

Pittenger and Smith (1957) found a reduced level of understanding when there were discrepancies between verbal content and nonverbal cues. Attending to auditory dimensions appears to have significant considerations for training judges in rating counseling tapes. Untrained judges were able to rate audio tapes of counseling very similar to trained judges when all focused on auditory cues (Shapiro, 1967).

Much of the literature on auditory dimensions discusses para-language. This is taken to characteristically include vocal intensity, pitch, tones, hesitations and vocal gaps or pauses. In a comparison study of peak and poor therapy hours, Duncan, Rice and Butler (1968) found reliability coefficients of .65 for stress and intensity and .91 for pauses.

Measurements of "duration of utterance," "duration of latency," and "percentage of interruption" for audio tapes and written transcripts

of the counseling sessions were done by Matarazzo et al. (1968) and a correlation coefficient of .92 for both media were reported.

The ability to predict self descriptions of clients from counseling sessions was increased by both hearing the audio tape of the interaction which included the affective, paralanguage cues as opposed to reading the written typescripts of the sessions which included only the content cues (Anthony, 1968). Counselors focusing on verbal cues alone resorted to cognitive interpretation as a method of intrapsychic process during the counseling session (Hands, 1974).

McQuown (1957), using audio taped cased illustrations, reported that linguistic concepts can be used in analyzing therapeutic interactions. It was earlier reported that subjects had misperceptions and misjudgments on socially inappropriate words but not on neutral ones (McGinnies, 1949). The researcher used a list of eighty-one (81) words which were presented one at a time tachistoscopically to eight men and eight women. These words were presented for increasingly longer durations of time until they were recognized. Eleven words were neutral content and seven were critical (e.g. raped, whore and bitch). Galvanic skin responses (GSR) to words before full recognition were significantly greater for the critical than for the neutral words. Subjects apparently react with entire conscious awareness to certain words or type of words. This is an anticipatory reaction which may have subsequent effects on the responses made. Do counselors react in similar ways? Research into this area may show that counselors develop "head sets" about certain emotionally laden words just as noncounselors do.

Straus (1963) calls this anticipatory response "establishing."

We arrive at perception by what we may call a process of establishing. The factual is the theme of perceiving. Perceiving and not sensing is a knowing. It is the first step towards cognition. Insofar as perception is sensory perception, it is a determination of sensory impressions (p. 329).

In a study on judgments of therapeutic conditions, Shapiro (1968) concluded that judges were probably more disposed towards verbal behavior as a predictor of counselor genuineness, empathy and warmth simply because that was the most frequently used sensory channel. Persons may not only have a predisposition to certain verbal symbols, but also may not be able to make the most basic distinctions about voices on audio tapes, i.e. sex and age (Markel, 1964).

Pope and Siegman (1962) reported that a counselor's paralinguage does relate to a client's paralinguage. In a study primarily designed to show that paralinguage can be reliably measured, Matarazzo and Wiens (1972) reported very similar findings. In a follow up study in 1972, Pope and Siegman, using student counselors and student nurses in initial counseling sessions, presented findings that a counselor's paralinguage can influence the client's paralinguage. Using hospitalized patients, the same researchers reported that paralinguage differs according to high and low anxiety days.

Kanfer (1960) presented still another positive relationship between paralinguage cues and anxiety using hospitalized patients and audio taped sessions. Rubenstein and Cameron (1968) reported a high level of sophistication in the equipment being used to measure paralinguage characteristics. A sonograph identified frequency, amplitudes and durations in voice for clients. Comparing the results for patient responses during times of affective content and neutral content, the researchers found that frequencies were a more accurate measurement of change in emotional states.

A pioneer researcher in the measurements of the relationship between client anxiety and speech disturbance was Mahl (1956, 1961, 1963). His work served as the prototype for subsequent and similar research done by Panek and Martin (1959). They used GSR as an index of anxiety and related it to speech disturbance. They found that incidents of both occurred simultaneously in the counseling sessions.

Speech disturbance in the client was related to the actual physical distance between the counselor and the client (Lassen, 1969). He also reported that the greatest disturbance occurred when the distance between the two persons was nine feet and the least when the distance was only three feet.

Boomer's study (1963) showed a relationship between body movement and speech disturbance using both audio tapes and films. Yet Dittman (1962) had reported earlier that his research, using films, presented evidence that foot movements (kinesics) and speech disturbances were not related.

The studies reviewed did not present evidence that subjects were tested for auditory acuity prior to investigation of variables related to audition. This research attempted to account for this variable by including a measurement of auditory acuity before the dimension of auditory discrimination was measured.

Visual Dimensions

Research which has focused on body cues and the relationship to counseling has investigated such variables as foot and hand movements, head movements and muscular tensions and facial expressions as well as categorizing the entire range of possible movements a human can make. All of these movements are termed kinesics. The attention paid to

kinesics in counseling is significant in terms of what Ekman and Friesan (1969a) called psychological leakage. They proposed that much body movement has to do with an overflow of affect in the person who has not learned how to deal with it in a positive or adaptive manner. This overflow is handled by the body through a discharge of energy in movements of the extremities or muscular tensions.

In a description of person perception, Hochberg (1968) pointed out that perceivers regularly use facial features or body movements in space as cues about the psychological characteristics of that person. Deutsch (1959) in an early study done in a psychoanalytic manner, showed how one client used different nonverbal behaviors with three separate therapists. In 1963, he described clinical experiments in which patients were shown to change kinesics during the course of therapy. In a more statistically reliable effort in 1966, Deutsch presented a moment by moment analysis of kinesics in a filmed analysis showing one client in psychoanalysis.

In another psychoanalytic study, Loeb (1968) related fist action to patient affect in filmed tapes of the counseling sessions. Feet and hands were judged to be more reliable than head movements in revealing kinesic leakage (Ekman and Friesan, 1969a). An early descriptive study done by Sainsbury (1955) related gestures to increases in stress or emotional involvement in a filmed analysis.

An investigation by Condon and Ogston (1966) revealed that psychotic patients and normal subjects had significantly different scores on measures of kinesics and speech. Freedman (1972) reported that kinesics could be reliably evaluated by therapists and differed according to types of hospitalized patients.

One approach to using visual cues came from Exline (1972) who measured only eye contact between counselor and client. Ekman and Friesen (1969b, 1972) reported finding that face, trunk and hand movements were significantly related to affective content during counseling sessions.

Classifying all of the diverse body movements and gestures was done in an attempt to instill a semblance of order into what had been a haphazard pile of research attempts on kinesics. Ekman (1966) established a classification system which incorporated seventeen categories for describing three major areas: head and face, arms and hands, and torso. After training, judges were able to establish significant agreement regarding the notation of specific movements in five second time segments of counseling films. Conclusions reached about the experiment showed a significant difference between the kinesics of good and bad counselors.

Judges who were permitted only visual monitoring of counseling sessions were able to make reliable and meaningful statements about the expressions of the client's current emotional status (Shapiro, 1968). In a study which compared the reactions of judges to still pictures and acted vocal affect, Mehrabian and Ferris (1967) showed a greater responsiveness to visual than to auditory cues.

Levitt (1964) reported that acted emotion was communicated as effectively with facial expressions as with voice alone. Facial expressions were an intrinsic part of a study done by Shapiro, Foster and Powell (1968) in which ten trained and thirty naive judges rated two groups of photos of counselors. There was significantly high agreement among both groups of judges to report that therapists' attitudes

are communicated through nonlinguistic behavior, especially through facial cues. Schlossberg (1952), in an attempt to reduce the number of facial expressions which can be conveyed accurately in photos, concluded that only two dimensions are sufficient to produce measurement of discrimination: pleasantness-unpleasantness and attention-rejection. Facial expressions from still or moving pictures communicated both the type and intensity of emotion while body positions from photos communicated only intensity of affect (Ekman and Friesen, 1968).

A counselor training program which has focused on using videotapes to modify counselor behavior relied heavily on visual cues, body and facial gestures (Krumholtz, Varenhorst, and Thoresen, 1967). Using a role play film, Delaney (1966) said that the ability of student counselors to understand nonverbal behavior was increased through didactic training methods.

The use of audio and video tapes in simulation training labs for counselors has been well documented (Carkhuff, 1969; Ivey, 1971; Krumholtz, Thoresen and Zifferblatt, 1971). It appears that the primary focus of many of these programs is on teaching the student counselor how to make the proper responses which are regarded as being facilitative. It is the belief of this researcher that facilitative responses can only be made when the counselor has been trained to be perceptive of all of the messages being sent by the client. Some emotional data is sent only through kinesics when the client does not know how to or cannot for some emotional reason communicate through a verbal mode. The counselor has to be trained to recognize kinesic behavior and relate it accurately to emotional states. Counselor training programs must turn to building these skills through the use of video taping equipment,

which while expensive, may prove to be more useful to the counselor in terms of facilitating client change.

Client Ratings

One method of determining the effectiveness of a counselor is to allow the client to complete some form of rating instrument. "A successful practitioner, among other things, is one who elicits favorable reactions from the recipients of his services" (Goodstein and Grigg, 1957, p. 31). Many authors have agreed that client ratings are an effective measure of counseling (Patterson, 1958; Linden, Stone and Shertzer, 1965; Thompson and Miller, 1970; Arbuckle, 1956; Goodstein and Grigg, 1957, 1959; Pohlman and Robinson, 1960; Grigg, 1961).

Truax and Carkhuff used clients to rate counselors on empathy, warmth and genuineness (1967). Positive correlations were reported by Brown and Cannaday (1969) between client and supervisor rankings of counselor effectiveness.

Several variables appear to affect client ratings including unrealistic client expectations (Patterson, 1958), subjectivity (Pohlman, 1961), preferences regarding the counseling relationship (Patterson, 1959) and distorted perceptions (Truax, 1961).

While they suggest the use of multiple criterion measures of counseling effectiveness, Goodstein and Grigg (1959) stated "client satisfaction is one important factor in any multi-factor approach to the problem of effectiveness in counseling" (p. 23).

External Judges

Both trained and untrained (naïve) judges have been used to evaluate counseling sessions. Judges customarily listen to audio tapes

or view video tapes and rate certain dimensions, i.e. empathy, level of regard, etc. One the earliest attempts in using external judges was the work by Rogers and Dymond (1954). These researchers used outside raters to blind rate clinical material. Process research in 1967 used external judges to rate material (Truax and Carkhuff).

The use of trained raters appears to be uncomplicated and requires a minimal time expenditure (Pare, 1970). Objective ratings of tape recorded sessions appears more valid than measures involving client perceptions of therapeutic conditions (Truax, 1966).

It was found that the rater's level of ability to offer therapeutic conditions had significant relationships to rater accuracy (Cannon and Carkhuff, 1968). Several studies indicate that high functioning raters make more accurate ratings than do low functioners (Carkhuff, Kratichvil, and Friel, 1965).

CHAPTER III

RESEARCH METHODOLOGY

This research was carried out in two phases: first, subjects were contacted by the researcher to explain the investigation and to elicit cooperation, and second, the actual administration of all testing instruments was accomplished. Samples of all test forms are presented in the appendix.

Sample

The subjects in this study included students enrolled in Counselor Education at the University of Florida who are in the Counseling Theories and Lab (EDC 614/620), a required course. Up until this course, these students had not been exposed to formal counseling experiences. They constituted the "no experience" segment of the sample. The subjects were designated and acceptable as "no experience" only if they had done less than six (6) weeks of counseling with individuals or groups and were the primary counselor in the interaction. The number was sixteen.

Additional subjects were volunteers from professional counseling staffs at the University of Florida Student Mental Health Service and local mental health agencies. They had a wide range of experience and came from different orientations: counselor education, clinical psychology, medicine and social work. The total number in this group was eighteen. The "experienced" counselors in this segment were

acceptable as such only if they had a minimum of three (3) months experience as a counselor during which time they had primary responsibility for the counseling interaction.

The total sample size was thirty-four (34) with participation entirely voluntary. Effort was made to balance the sample by sex. Clients were used only if they were the first new client of the subject during the week of that section of the research. The counselor was to have had no prior contact with the client.

The subjects in both groups were asked to fill out the Counselor Demographic data sheet at the beginning of the research so that information about sex, age, theoretical orientation and academic background could be explored after the testing was completed.

Instrumentation

Six separate measuring devices were used in this study. All shall be described in future pages and copies are included in the Appendix. These instruments include:

1. Simple tone test (auditory acuity).
2. Snellen eye test (visual acuity).
3. Inferred Meanings Test - Audio (IMTA).
4. Inferred Meanings Test - Video (IMTV).
5. Barrett-Lennard Relationship Inventory (BLRI).
6. Depth of Self Exploration (DSE).

A review of the literature discussed in Chapter II revealed that researchers have not established, as a necessary prerequisite in their studies, subjects ability to accurately receive auditory and visual stimuli. It appeared to be assumed that all subjects had sufficient ability to receive sensory information through these two channels. In

order to account for the possibility that some subjects may have a deficiency or a disability in one or both areas, this research began by establishing the level of auditory and visual acuity for each subject. One reason for this aspect of the research was to consider the compensating mechanisms which perceptually disabled adults use. For instance, an adult who has a deficiency in an auditory area will learn through a number of sensory mechanisms to discount the material or data received through that channel and will emphasize the efficient use of data received through other modalities. Perhaps counselors react in similar ways in the counseling process. The counselor who has a visual deficiency may disregard data taken in through that modality and concentrate only on auditory cues. This may be done only at very limited levels of awareness. It appeared to be an important variable to explore and consider in this research on perceptual discrimination. The first two instruments were used to ascertain levels of acuity in both modalities. The second two instruments, differing forms of one basic test--Inferred Meanings Test--were used to investigate the discriminating abilities of the subject.

1. Simple tone test

This procedure can be used as a wide-scale screening or individual test of auditory acuity with both children and adults. The subject was instructed to listen for a simple tone made by a tuning device at distances of two, five and ten feet away from them. The subject's back was to the device so that he/she could not actually see when the tone was being produced. Subject indicated by answering "yes" or by raising a hand to signal that a sound was discerned. Scores were recorded in plus (+) signs or minus (-) signs to indicate

that the subject heard (+) or did not hear (-) the tone. This was only a rough indication of auditory acuity and could only be considered as a general screening procedure to eliminate any gross auditory deficits. The researcher administered the test to subjects.

2. Snellen eye test

Visual acuity in subjects was measured by the eye chart. A simple device, it included both a form using letters and a form having symbols. It is the most commonly used visual screening device in this country. It measures distant, central field acuity. The chart was set twenty feet from the subjects (six meters) because rays of light are nearly parallel at this distance. The score was recorded in a fractional format with the numerator indicating the test distance and the denominator representing the distance at which the smallest letters should be seen by the normal eye. Scores were recorded according to the standard fractional format. The researcher administered the test to the subjects.

3. Inferred Meanings Test--Audio

This research used a revision of the initial IMT. The first Instrument was designed by Sundberg for his doctoral dissertation (1952) to measure sensitivity. Newman (in preparation) expanded it for her dissertation using a professional actress to do the recording which allowed for a higher quality sound performance. The IMT is a measure of one's ability to correctly hear the affectual component of language (Newman and Hall, 1971, p. 6).

The test consisted of forty-eight electronically repeated statements which a trained actress (Doreen M. Elefthery) delivered. She attempted to convey certain emotional meanings in each statement through changes in her vocal inflection, stress and pitch. The

choice of the meaning which the speaker intended is the correct answer. The range is one to forty-eight. An external criterion group provided confirmation of the speaker's intended meanings. The answer sheet provided four different meanings for each statement. Administration time is approximately twenty minutes.

Newman (in preparation) found that a correlation of .03 occurred between scores on the IMT and scores on the Graduate Record Examination for graduate students in Counselor Education at the University of Florida. Associations between positive change on the IMT and improvement in clients were reported by Newman and Hall (1971). Test-retest correlations of reliability were found by Newman (in preparation) to be .66 to .74 for a group of fifty-three subjects.

The researcher administered the test to the subjects in this study. A copy of the test form is included in the Appendix.

4. Inferred Meanings Test--Video

Using the basic assumptions of the audio form of the IMT, this researcher designed a video format. A semi-professional actress, Margaret Beistle, who was trained as a counselor, attempted to convey specific emotional meanings through her body movements, facial grimaces and hand gestures. A separate answer sheet gave the statement intended and four separate meanings. The test was designed to measure one's ability to correctly perceive affectual components conveyed through visual channels. There was no sound on the video tape. All statements were read by the subject and shown on the monitor. The correct choice was the meaning the actress intended. There were twenty statements and administration time was approximately twenty minutes. Since the actress depicted the statement only once,

instructions on the form indicated to the subject that the tape could be stopped at any point so that a segment could be seen as many times as needed. The researcher administered the test to the subjects. An external group of Judges provided confirmation of the intended emotional message. A copy of the test form is included in the Appendix.

5. Barrett-Lennard Relationship Inventory (BLRI)

One of the earliest instruments designed to measure the perceptions which the client has of the counselor's therapeutic conditions was done by Barrett-Lennard in 1959 and was initially used with psychoneurotics. Subsequent studies were done on juvenile delinquents (Truax et al., 1966), outpatients (Truax et al., 1966) and schizophrenics (Truax et al., 1966). Mills and Zytowski (1967) followed up the early research when they used the inventory to investigate parent-child relationships, mother-daughter relationships, and teacher-pupil relationships. In 1967 Morgenstern used this inventory to study roommates' perceptions of each other. Focusing on individual members of a T group, Reddy (1970) measured intragroup perceptions. The perceptions of undergraduate clients at a university counseling center were investigated with relation to their individual counselors (Kurtz and Gummon, 1972).

The inventory is a 64 item questionnaire, form OS-M-64. Each item statement describes a behavior which has been validated as being characteristic of one of the essential four therapeutic conditions (Rogers, 1957): empathic understanding, level of regard, unconditionality of regard, and congruence. Statements are given in both positive and negative directions. Responses are made by the subject

on a six (6) point scale which ranges from a +3 ("Yes, I strongly feel that this is true") to a -3 ("No, I strongly feel that this is not true"). Zero responses are not possible.

Barrett-Lennard reported a split half reliability for the four subtests as ranging from .75 to .94. The test stability over a four week period was reported by that author as .84 to .90 (Barrett-Lennard, 1962). Mills and Zytowski (1967) reported test-retest reliability of .74 to .90 over three weeks.

The form was given to the subjects with specific instructions for the client. Completed forms were placed by the client in envelopes addressed to the researcher and sealed by the client. Since all forms were coded, clients were instructed not to include their names on the forms to guarantee their confidentiality. Subjects (counselors) did not see the completed forms. A copy of the inventory is presented in the Appendix.

6. Depth of Self Exploration

Truax and Carkhuff (1967) designed the scale to measure the extent to which a client can personally explore relevant material. This form was used by external judges when they listened to the audio tapes of counseling sessions which were done by the subjects and the clients who completed the Barrett-Lennard Relationship Inventory. Special weighting factors are included for "personally private" and "personally damning" material. It was intended to provide a quantitative measure of the kinds of behaviors which reflect effective counseling sessions. The judges used the nine point scale which attempted to delineate the depth of the client's self exploration. The scale ranges from a zero score which demonstrates no intrapersonal

exploration to a ceiling of nine (9) which indicates a very high level of self probing and exploration. The reliability coefficients for the test given by the authors range from .59 to .80.

Procedure

Phase 1: All subjects were contacted prior to testing to enlist cooperation. During the first week of the research, all subjects were assigned a code number and any subsequent test scores, answer sheets and audio tapes were coded correspondingly to preserve anonymity.

Phase 2: During the first of three weeks of testing, the subjects were asked to submit to the researcher an audio tape of a fifteen to thirty minute length of a counseling session. At the end of that session, the tapes were coded by the researcher.

The second week of testing consisted of both the administration of the simple tone test and the audio form of the IMT to all subjects. Standard directions for both instruments were given to subjects before being tested. All score sheets and answer forms received code numbers.

In order to avoid possible contamination, the Snellen eye test for visual acuity and the video format of the IMT were given one week later. All clients were given a copy of the Barrett-Lennard Relationship Inventory to complete about their counselor-client relationship. They had the counselor's code numbers on them and instructions for the client. A sealed envelope, addressed to the researcher, was given to the clients.

A panel of external judges rated the audio tapes of the counseling sessions on the dimensions given in the Depth of Self Exploration

and reported their written scores to the researcher. The judges were advanced (fifth quarter or more) counselor education students who received training in rating levels of self exploration. A determination of the validity of their ratings and intra-rater reliability was done during their training in order to assure the validity of their scoring for the present research. The raters attained a reliability level of .85.

The research lasted eight weeks. All data were tabulated (see form in the Appendix) and subjected to the statistical procedures explained in the following section by the computer available through the University of Florida Northeast Regional Data Center, Gainesville, Florida. Results are presented in Chapter IV.

Hypotheses

1. No significant relationship will exist between the counselors' auditory and visual discrimination.
2. No significant relationship will exist between the counselors' scores on the Inferred Meanings Test - Audio and their total scores on the Barrett-Lennard Relationship Inventory with auditory acuity partialled out.
3. No significant relationship will exist between the counselors' scores on the Inferred Meanings Test - Video and their total scores on the Barrett-Lennard Relationship Inventory with visual acuity partialled out.
4. No significant relationship will exist between counselors' scores on the Inferred Meanings Test - Audio and years of experience as a counselor with auditory acuity partialled out.
5. No significant relationship will exist between counselor scores on the Inferred Meanings Test - Video and years of experience as a counselor with visual acuity partialled out.
6. No significant relationship will exist between counselor scores on the Inferred Meanings Test - Audio and external judges' ratings of the Client Depth of Self Exploration with auditory acuity partialled out.

7. No significant relationship will exist between counselor scores on the Inferred Meanings Test - Video and external judges' ratings on the Client Depth of Self Exploration with visual acuity partialled out.
8. No significant relationship will exist between counselor total scores on the Barrett-Lennard Relationship Inventory and their years of experience as a counselor with auditory acuity and auditory discrimination partialled out.
9. No significant relationship will exist between counselor total scores on the Barrett-Lennard Relationship Inventory and their years of experience as a counselor with visual acuity and visual discrimination partialled out.
10. No significant relationship will exist between the ratings of external judges on the Client Depth of Self Exploration and years of experience as a counselor with auditory acuity and auditory discrimination partialled out.
11. No significant relationship will exist between ratings of external judges on the Client Depth of Self Exploration and years of experience as a counselor with visual acuity and visual discrimination partialled out.

Statistical Procedures

The following statistical procedures were used in this research:

1. For hypothesis 1, a 2x2 Chi Square was used to analyze data.

Subjects were placed in cells designated as high or low scores for both formats of the Inferred Meanings Test. Subjects scoring below the fiftieth percentile in the range of scores were placed in the low cell, while those scoring above the fiftieth percentile were placed in the high cell.

	Visual High	Visual Low	Total
Auditory High			
Auditory Low			
Total			

Since this particular data is in the form of frequencies, a Chi Square can determine significant differences. The .05 level of significance will be used. The fiftieth percentile of the scores will be used as the cutoff point for marking the subject high or low in both areas.

2. Hypotheses two through seven (2-7) will be subjected to a first order partial correlation. This statistical procedure allows for a correlation between two variables while holding a third variable constant. It eliminates the effect that the third variable has upon the first two variables. The statistical format is:

$$r_{12.3} = \frac{r_{12} - r_{13}r_{23}}{\sqrt{(1-r_{13}^2)(1-r_{23}^2)}}$$

where 1, 2 and 3 are variables and r is the sign for correlation. An example of a first order partial correlation using the present data would be as follows:

r_1 = score on auditory discrimination

r_2 = score on Barrett-Lennard Relationship Inventory

r_3 = score for auditory acuity

For the hypothesis that reads: There is no significant relationship between scores on the IMT - Audio and the BLRI with auditory acuity partialled out, the format would allow for the nullification of the effects of auditory acuity on the correlation between auditory discrimination and scores on the BLRI. A more valid correlation between the latter two variables could thus be obtained.

3. Hypotheses eight through eleven (8-11) involved the use of a second order partial correlation. This method allowed the holding of two variables constant at one time while two other variables are

correlated. In these hypotheses, it was necessary to hold two variables constant which are closely allied in order to avoid contamination of the desired variables. The formula for this procedure is as follows:

$$r_{12.34} = \frac{r_{12.3} - r_{14.3}r_{24.3}}{\sqrt{(1-r_{14.3}^2)(1-r_{24.3}^2)}}$$

where r is the symbol for correlation and 1, 2, 3 and 4 are variable scores. An example from the present data can be seen using the hypothesis (8) which states that there is no significant relationship between scores on the BLRI and length of experience as a counselor with auditory acuity and auditory discrimination partialled out.

r_1 = score on the Barrett-Lennard Relationship Inventory

r_2 = length of experience

r_3 = scores on IMT - Audio

r_4 = scores on auditory acuity

The .05 level of significance was used.

4. Demographic data was explored and tabulated for differences by sex, age and theoretical orientation.

CHAPTER IV

RESULTS

This study investigated the relationship between a counselor's auditory and visual discrimination and the client's perception of the counseling relationship and depth of self exploration. Both experienced and non-experienced counselors were involved in the research. The Inferred Meanings Test - Audio and Inferred Meanings Test-Video were used to measure auditory and visual discrimination, respectively. Total scores on the Barrett-Lennard Relationship Inventory provided the client's perception of the counseling relationship, while external judges' scores for the Client Depth of Self Exploration were used to investigate the degree to which the clients in the study discussed personally relevant material.

All data were analyzed by computer according to the following format.

H_{01} : A chi square statistic was employed to explore the relationship between the counselors' scores on the separate auditory and visual discrimination tests.

$H_{02} - H_{07}$: The use of a first order partial correlation for these six hypotheses permitted the measurement of a relationship between two variables while a third variable was partialled out.

$H_{08} - H_{011}$: A second order partial correlation was used for the final four hypotheses. This provided a correlation between two

variables while the effects of a third and a fourth were partialled out of the relationship.

All correlations were tested for significance at the alpha level of .05. Tests for significant t values were also computed on the correlation coefficients obtained. The null hypotheses results of data analysis are as follows:

H_0 : No significant relationship will exist between the counselor's auditory and visual discrimination.

The data analysis for the total sample group yielded a chi square value of 3.95 (Table I).

Scores in the low cell for each test were those falling below the fiftieth percentile in the range of scores for that test while high scores were above the fiftieth percentile.

TABLE I

NUMBER OF SUBJECTS SCORING IN EACH CATEGORY ON
INFERRED MEANINGS TESTS
(ALL SUBJECTS COMBINED)

Inferred Meanings Test - Audio			
Inferred Meanings Test - Video	Number of High Scores		Total Number
	Number of High Scores	Number of Low Scores	
	16	3	19
	Number of Low Scores	8	7
	Total Number	24	10
	$\chi^2 = 3.95$	$P < .05$	
	$N = 34$		
	$DF = 1$		

H₀2: No significant relationship will exist between the counselor scores on the Inferred Meanings Test - Audio (IMTA) and their total scores on the Barrett-Lennard Relationship Inventory (BLRI) with auditory acuity partialled out.

Scores on the IMTA and total scores on the BLRI were subjected to a first order partial correlation in both the experienced and non-experienced counselor groups with auditory acuity scores partialled out. Table 2 shows the correlation coefficients obtained for the relationships between all four instruments used in the study, for the non-experienced group, when acuity factors were partialled out. The obtained correlation coefficient for the relationship between non-experienced counselors' scores on the IMTA and the counselors' total scores on the BLRI when auditory acuity was partialled out was -0.118. This was not significant.

TABLE 2
PARTIAL CORRELATION COEFFICIENTS ON RELATIONSHIPS BETWEEN
NON-EXPERIENCED COUNSELOR SCORES ON FOUR INSTRUMENTS

	IMTA	IMTV	BLRI	CDSE
IMTA		0.297	-0.118	0.416
IMTV			0.223	0.226
BLRI				-0.009
N = 16	IMTA = Inferred Meanings Test - Audio IMTV = Inferred Meanings Test - Video BLRI = Barrett-Lennard Relationship Inventory CDSE = Client Depth of Self Exploration			

An associated t value was calculated for this coefficient with the alpha level set at .05. This was found to be -0.599 (Table 3) and not significant. H_0 was accepted indicating that no significant relationship existed between the scores on the IMTA and total scores on the BLRI when auditory acuity was partialled out for the non-experienced group.

TABLE 3
RESULTS OF THE ASSOCIATED VALUES OF t FOUND FOR THE PARTIAL
CORRELATIONS OBTAINED ON SCORES OF NON-EXPERIENCED COUNSELORS
ON FOUR INSTRUMENTS

	IMTA	IMTV	BLRI	CDSE
IMTA		1.084	-0.599	1.618
IMTV			1.092	0.405
BLRI				0.043
N = 16	IMTA = Inferred Meanings Test - Audio IMTV = Inferred Meanings Test - Video BLRI = Barrett-Lennard Relationship Inventory CDSE = Client Depth of Self Exploration			

The data analysis yielded a correlation coefficient of 0.599 between the scores on the IMTA and total scores on the BLRI for the experienced counselors with auditory acuity partialled out (Table 4). This was significant at the .05 level.

The associated t value found for the correlation between the experienced counselors' scores on the IMTA and their total scores on the BLRI when auditory acuity was partialled out was 2.692 (Table 5). This was a significant finding and the null hypothesis was rejected for the experienced group.

TABLE 4

PARTIAL CORRELATION COEFFICIENTS ON RELATIONSHIPS BETWEEN
EXPERIENCED COUNSELOR'S SCORES ON FIVE INSTRUMENTS

	IMTA	IMTV	BLRI	CDSE	EXP
IMTA		.134	.599*	.497	.004
IMTV			.248	.317	.181
BLRI				.390	-.024
CDSE					.046
N = 18	IMTA = Inferred Meanings Test - Audio				
	IMTV = Inferred Meanings Test - Video				
*P < .05	BLRI = Barrett-Lennard Relationship Inventory				
	CDSE = Client Depth of Self Exploration				
	EXP = Years of Experience				

TABLE 5

RESULTS OF THE ASSOCIATED t VALUES FOUND FOR THE PARTIAL
CORRELATIONS OBTAINED ON THE SCORES OF EXPERIENCED COUNSELORS
ON THE FOUR INSTRUMENTS

	IMTA	IMTV	BLRI	CDSE	EXP
IMTA		-.439	2.692*	1.724	.245
IMTV			.768	1.227	.878
BLRI				.259	-.230
CDSE					-.374
N = 18	IMTA = Inferred Meanings Test - Audio				
	IMTV = Inferred Meanings Test - Video				
*P < .05	BLRI = Barrett-Lennard Relationship Inventory				
	CDSE = Client Depth of Self Exploration				
	EXP = Years of Experience				

The data analysis yielded a correlation coefficient of .383 when the scores of both the experienced group and the non-experienced group were combined (Table 6). This was not a significant finding.

TABLE 6

PARTIAL CORRELATION COEFFICIENTS ON RELATIONSHIPS BETWEEN ALL SUBJECTS' SCORES ON FOUR INSTRUMENTS

	IMTA	IMTV	BLRI	CDSE
IMTA		.356	.383	.453*
IMTV			.405	.287
BLRI				.185
N = 34	IMTA = Inferred Meanings Test - Audio			
	IMTV = Inferred Meanings Test - Video			
*P < .05	BLRI = Barrett-Lennard Relationship Inventory			
	CDSE = Client Depth of Self Exploration			

The associated t value found for this relationship (Table 7) was 1.737, not sufficient to reject a null hypothesis at a .05 level of significance.

No significant relationship was found between scores on the Inferred Meanings Test - Audio and total scores on the Barrett-Lennard Relationship Inventory with auditory acuity partialled out for the total sample (Tables 6 and 7).

H_0^3 : No significant relationship will exist between counselor scores on the Inferred Meanings Test - Video (IMTV) and their total scores on the Barrett-Lennard Relationship Inventory (BLRI) with visual acuity partialled out.

TABLE 7

RESULTS OF THE ASSOCIATED t VALUES FOUND FOR THE
PARTIAL CORRELATIONS OBTAINED ON THE SCORES OF ALL SUBJECTS
ON ALL FOUR INSTRUMENTS

	IMTA	IMTV	BLRI	CDSE
IMTA		.936	1.737	2.703*
IMTV			2.005	.917
BLRI				-.186
N = 34	IMTA = Inferred Meanings Test - Audio			
	IMTV = Inferred Meanings Test - Video			
*P < .05	BLRI = Barrett-Lennard Relationship Inventory			
	CDSE = Client Depth of Self Exploration			

The partial correlation coefficient established for scores on the IMTV and BLRI when visual acuity was partialled out for the non-experienced counselors was 0.223 (Table 2) which was not significant. The associated t value found was 1.092 (Table 3), not sufficient to reject the null at a .05 level of significance, and H_0 was accepted for the non-experienced group of counselors.

The coefficient for the relationship between the IMTV and BLRI for the experienced group of counselors with visual acuity partialled out was .248 (Table 4). This was not significant. The corresponding t value found for this group was .768 (Table 5) which was insufficient to reject H_0 at a .05 level of significance with 16 degrees of freedom.

For all subjects combined, a correlation coefficient of .405 was found between scores on the IMTV and BLRI with visual acuity partialled out (Table 6). This was not a significant finding. The

corresponding t value was 2.005 (Table 7). This was not significant. Therefore, for each group separately and for the total sample, H_0^3 was accepted.

H_0^4 : No significant relationship will exist between counselor scores on the Inferred Meanings Test - Audio (IMTA) and their years of experience as a counselor with auditory acuity partialled out.

The partial correlation coefficient found for the relationship between scores on the Inferred Meanings Test - Audio (IMTA) and years of experience (EXP) as a counselor when auditory acuity was removed was .004; not significant (Table 4). The associated t value for this relationship was .245 (Table 5) which did not equal the value of t necessary to reject the null hypothesis at a .05 level of significance. Therefore, H_0^4 was accepted and it can be concluded that there was no significant relationship between experienced counselors' scores on the IMTA and their years of experience as a counselor when the effects of auditory acuity were partialled out.

H_0^5 : No significant relationship will exist between counselor scores on the Inferred Meanings Test - Video (IMTV) and their years of experience as a counselor with visual acuity partialled out.

The experienced counselors' scores on the IMTV and their years of experience as a counselor were correlated with the effects of visual acuity partialled out. The correlation coefficient established for this relationship was .181 which was not significant (Table 4).

The corresponding t value found when these two variables were compared was .878 and H_0^5 was accepted (Table 5).

It can be concluded that there was no significant relationship between scores on the Inferred Meanings Test - Video and years of experience as a counselor when the effects of visual acuity were removed for the experienced counselor group in this study.

H_0 : No significant relationship will exist between counselor scores on the Inferred Meanings Test - Audio and external judges ratings of the Client Depth of Self Exploration with auditory acuity partialled out.

For the non-experienced group, a partial correlation coefficient of .416 (Table 2) was found for the relationship between scores on the IMTA and external judges' ratings on the CDSE when the effects of auditory acuity were partialled out. This was not significant at the alpha level set.

The calculated t value for the comparison was 1.618 (Table 3), not sufficient to reject the null hypothesis with 14 degrees of freedom at the .05 level of significance and H_0 was accepted.

The results of the data analysis for the experienced group of counselors yielded a partial correlation coefficient of .497 (Table 4) between the two designated variables for this hypothesis but was not significant.

The t value associated with this relationship was 1.724 which was not sufficient to reject the null hypothesis at a .05 level (Table 5).

For all subjects combined, the partial correlation coefficient calculated for the relationship between scores on the IMTA and judges' ratings on the CDSE was .453 (Table 6). This was significant.

The value of t for the total group was 2.703 (Table 7) and H_0 was rejected at a .05 level of significance for all subjects combined.

H₀7: No significant relationship will exist between counselor scores on the Inferred Meanings Test - Video and external judges' ratings on the Client Depth of Self Exploration when the effects of visual acuity are partialled out.

For the group with no experience in counseling, a partial correlation coefficient of .226 (Table 2) was established for the relationship between scores on the IMTV and external judges' ratings on the CDSE when the effects of visual acuity were partialled out. This coefficient was not significant at the alpha level set.

The relationship resulted in a value of t of .405 (Table 3) and, for the non-experienced subjects, H₀7 was accepted.

The data analysis revealed a partial correlation coefficient of .317 (Table 4) for the degree of relationship between experienced counselors' scores on the IMTV and CDSE with visual acuity partialled out. This was not significant.

The corresponding t value for this relationship was 1.227 (Table 5) and for the experienced sample H₀7 was accepted.

For all subjects, a partial correlation coefficient of .287 was found when the relationship between scores on the IMTV and CDSE were analyzed (Table 6). This was not significant at the alpha level set.

A t value of .917 was found (Table 7). This value was not great enough to reject the null hypothesis. Therefore, for both sample groups and the total group, H₀7 was accepted.

H₀8: No significant relationship will exist between counselor total scores on the Barrett-Lennard Relationship Inventory (BLRI) and their years of experience as a counselor with auditory acuity and auditory discrimination partialled out.

The relationship between the experienced counselors' total scores on the BLRI and years of experience in counseling, when the effects of both auditory acuity and discrimination were partialled out, yielded a coefficient of $-.026$ (Table 8). This was not significant at the $.05$ level.

The corresponding t value was $-.250$, which did not reach the level necessary to reject the null hypothesis (Table 9) and H_{08} was accepted for the experienced sample.

H_{09} : No significant relationship will exist between counselor total scores on the Barrett-Lennard Relationship Inventory (BLRI) and their years of experience as a counselor with visual acuity and visual discrimination partialled out.

The relationship between the scores for experienced counselors on the BLRI and their years of experience in counseling was $-.063$ (Table 8) when the effects of auditory acuity and auditory discrimination were partialled out. This was not a significant correlation.

The t value calculated for this relationship was $-.144$ (Table 9). This was not significant and H_{09} was accepted for the experienced counselors.

H_{010} : No significant relationship will exist between the ratings of external judges on the Client Depth of Self Exploration (CDSE) and years of experience as a counselor with auditory acuity and auditory discrimination partialled out.

The relationship between external judges' ratings on the CDSE for the clients of experienced counselors and those counselors' years of counseling experience was established at $-.105$ (Table 8) when the

TABLE 8
SECOND ORDER PARTIAL CORRELATION COEFFICIENTS ON
RELATIONSHIPS BETWEEN EXPERIENCED COUNSELORS'
SCORES ON THREE VARIABLES

	<u>Exp</u>	
BLRI	-.063	(Visual acuity and visual discrimination partialled out.)
	-.026	(Auditory acuity and auditory discrimination partialled out.)
CDSE	-.042	(Visual acuity and visual discrimination partialled out.)
	-.105	(Auditory acuity and auditory discrimination partialled out.)
N=18		

TABLE 9
RESULTS OF THE ASSOCIATED t VALUES FOUND FOR THE
PARTIAL CORRELATIONS OBTAINED ON THE SCORES
OF EXPERIENCED COUNSELORS ON THREE VARIABLES

	<u>Exp</u>	
BLRI	-.144	(Visual acuity and visual discrimination partialled out.)
	-.250	(Auditory acuity and auditory discrimination partialled out.)
CDSE	-.371	(Visual acuity and visual discrimination partialled out.)
	-.474	(Auditory acuity and auditory discrimination partialled out.)
N=18		

effects of both auditory acuity and auditory discrimination were partialled out. This was not a significant relationship.

The value of t found for this relationship was $-.474$ (Table 9), not sufficient to reject the null hypothesis at a .05 level of significance.

H_{011} : No significant relationship will exist between ratings of external judges on the Client Depth of Self Exploration (CDSE) and years of experience as a counselor with visual acuity and visual discrimination partialled out.

The correlation found when the experienced counselors' years of experience was correlated with external judges' ratings on CDSE for their clients when the effects of visual acuity and visual discrimination were removed was $-.042$ (Table 8) which was not significant.

The associated t value for this relationship was $-.371$ (Table 9). This did not reach a level necessary to reject the null hypothesis at a .05 level of significance and H_{011} was accepted for the experienced counselors.

Variable Data

A statistical breakdown of four variables was done comparing mean scores for both sample groups. The following tables give the results of the comparisons for the Inferred Meanings Test - Audio, Inferred Meanings Test - Video, Barrett-Lennard Relationship Inventory, and Client Depth of Self-Exploration.

In Table 10, a t value of -2.4477 was found when the mean scores of the two sample groups were compared. It was concluded that there was a significant difference between the scores of the two groups on

TABLE 10
COMPARISON OF MEAN SCORES ON THE INFERRED
MEANINGS TEST - AUDIO

		(AUDITORY DISCRIMINATION)		
		MEAN	SD	SEM
Non-Experienced Counselors	N=16	29.1875	2.4005	0.6001
Experienced Counselors	N=18	*31.7777	3.5736	0.8423
† = -2.4477		SD = standard deviation		
df = 32		SEM = standard error of the mean		
*P < .05				

the Inferred Meanings Test - Audio with the experienced counselors having the higher scores.

The comparison of mean scores for both groups on the Inferred Meanings Test - Video (Table II) yielded a t value of -3.402 which was significant at a .05 level. There was a significant difference between the scores of the two groups on the Inferred Meanings Test - Video with the experienced counselors having the higher scores.

TABLE 11
COMPARISON OF MEAN SCORES ON THE INFERRED
MEANINGS TEST - VIDEO

		(VISUAL DISCRIMINATION)		
		MEAN	SD	SEM
Non-Experienced Counselors	N=16	15.2500	1.238	0.3095
Experienced Counselors	N=18	*16.6666	1.1881	0.2800
† = -3.402		SD = standard deviation		
df = 32		SEM = standard error of the mean		
*P < .05				

Table 12 presents a calculated t value of -2.7735 for the comparison of mean scores for both groups on the Barrett-Lennard Relationship Inventory. This was a significant value at the .05 level, and it was concluded that there was a significant difference between scores of the two groups on the Barrett-Lennard Relationship Inventory with the experienced counselors having the higher scores.

TABLE 12
COMPARISON OF MEAN SCORES FOR THE BARRETT-LENNARD
RELATIONSHIP INVENTORY

		MEAN	SD	SEM
Non-Experienced Counselors	N=16	87.625	33.6350	8.4087
Experienced Counselors	N=18	*115.00	23.5596	5.5530
$t = -2.7735$ $df = 32$ $P < .05$				

The value of t found for the difference between means on the Client Depth of Self Exploration was -0.6269 (Table 13). This was not a significant difference. Therefore, it was concluded that the experienced counselors and the non-experienced counselors did not score significantly different on the Client Depth of Self Exploration.

TABLE 13
COMPARISON OF MEAN SCORES FOR THE CLIENT
DEPTH OF SELF EXPLORATION

		MEAN	SD	SEM
Non-Experienced Counselors	N=16	4.125	1.3102	0.3275
Experienced Counselors	N=18	4.3888	1.1447	0.2698

† = -0.6269
df = 32

CHAPTER V

CONCLUSIONS

Summary

This study investigated the relationship between counselor skills in auditory and visual discrimination and subsequent client depth of self exploration and perception of the counselor/client relationship. The subjects included non-experienced counselor trainees (N=16) enrolled in the Counseling Theory and Techniques Laboratory course, a required departmental course in Counselor Education at the University of Florida, and an experienced counselor sample (N=18) composed of counselors who had no less than six months of experience as practicing counselors. The actual length of experience for this group ranged from six months to twelve years. The non-experienced trainees had no formal counseling experience.

Four instruments were used in the research: 1) the Inferred Meanings Test - Audio (IMTA) which measures auditory discrimination; 2) the Inferred Meanings Test - Video (IMTV) which measures visual discrimination; 3) the Barrett-Lennard Relationship Inventory (BLRI), an instrument completed by the client on the nature of the counselor/client relationship and, 4) the Client Depth of Self Exploration (CDSE). This latter measure involved the use of external judges who rated counseling tapes and assigned a value indicating the degree to which personal material was discussed by the client during the counseling session.

A statistical analysis of the results yielded partial correlation coefficients, associated t values and summary data for the following five variables: auditory discrimination, visual discrimination, counselor/client relationship, client depth of self exploration and the counselor's years of professional experience. The effects of both subject visual acuity and auditory acuity, which had been measured by a Snellen eye chart and a simple tone test, respectively, were removed through the partialing process. Relationships were assessed and evaluated between visual and auditory discrimination and perceptions of the counseling relationship; between visual and auditory discrimination and client depth of self exploration; and between visual and auditory discrimination and length of the counselor's professional experience. In addition, relationships between auditory discrimination and visual discrimination; between the length of the counselor's professional experience and the perception of the counseling relationship were investigated.

In summary, the results obtained from the study are:

1. A significant relationship was found between the counselor's auditory and visual discrimination skills for all subjects. Apparently, auditory and visual discrimination are related perceptual skills for those subjects tested.
2. No significant relationship was found between the counselors' scores on the Inferred Meanings Test - Audio and their total scores on the Barrett-Lennard Relationship Inventory with auditory acuity partialled out for non-experienced subjects but not for experienced counselors tested. The experienced counselors in this study had more skills than did the non-experienced subjects in auditory discrimination which positively related to the clients' perceptions of the counseling relationship.
3. No significant relationship was found between the counselors' scores on the Inferred Meanings Test - Video and their total scores on the Barrett-Lennard Relationship Inventory with visual acuity partialled out for all subjects. The level of skill in visual discrimination and the client perception of

the counseling relationship was not positively related for subjects tested in this study.

4. No significant relationship was found between the counselors' scores on the Inferred Meanings Test - Audio and Video and years of experience as a counselor with auditory acuity partialled out for all subjects. The level of skill in auditory and visual discrimination possessed by subjects tested was not positively related to the number of years spent as a professional counselor.
5. No significant relationship was found between the counselors' scores on the Inferred Meanings Test - Audio and external judges' ratings on the Client Depth of Self Exploration with auditory acuity partialled out for either the experienced or the non-experienced groups. However, when all subjects were combined, a significant relationship was found. Apparently, the subjects' skills in auditory discrimination and the clients' self exploration were positively related factors when all subjects were considered.
6. No significant relationship was found between the counselors' scores on the Inferred Meanings Test - Video and external judges' ratings on the Client Depth of Self Exploration with visual acuity partialled out for all subjects. Skill in visual discrimination and client self exploration were not positively related factors for the subjects tested.
7. No significant relationship was found between the counselors' total scores on the Barrett-Lennard Relationship Inventory and years of professional experience as a counselor with auditory and visual acuity, and auditory and visual discrimination partialled out for all subjects. The clients' perceptions of the counseling relationship and the counselors' years of professional experience were not positively related factors after the designated variables were removed.
8. No significant relationship was found between the ratings of external judges on the Client Depth of Self Exploration and years of experience as a counselor with auditory and visual acuity, and auditory and visual discrimination partialled out for all subjects. The clients' discussions of personal material was not positively related to the number of years a counselor had spent as a professional.

Discussion

A significant relationship was found between the abilities to correctly discriminate auditory and visual information for all subjects in this study. For the experienced counselor group, these discrimination

abilities were significantly higher than were those of the non-experienced subjects. This difference could be attributed to a number of factors; however, length of professional experience as a counselor was not found to be significant.

The above finding suggests that auditory and visual discrimination skills can be learned and refined in a counselor training program. Perhaps counselors are reinforced for their attentiveness by their clients. This reinforcement may come in the form of increased client verbalization, greater introspection or personal exploration.

The results indicated that a significant relationship existed between the experienced counselors' auditory discrimination skill and the clients' perceptions of the counselor/client relationship. Thus, the more skilled the counselor is in perceiving the correct emotional meanings in the client's "messages," the more positively the client will perceive the counseling relationship. This suggests that counselors, specifically trained in techniques of auditory discrimination, might be better able to facilitate positive helping relationships with their clients.

The finding of no significant relationship between either auditory or visual discrimination and the clients' perceptions of the counseling relationship for the non-experienced subjects is important. The non-experienced subjects also had lower scores on the discrimination tests and the relationship inventory than did the experienced counselors. The lack of any significant relationship between the non-experienced subjects' low scores on these variables provides a definite contrast to the significant relationship found for the experienced counselors. These subjects had no formal training in discrimination techniques,

had less education and were younger than the experienced counselors. These three factors apparently contributed greatly to the differences found between the two groups.

A significant relationship between auditory discrimination and the depth of a client's self exploration was found for the total group of subjects. Both experienced and non-experienced subjects with high scores in auditory discrimination had high scores on client self exploration. Thus, the subjects in this study who could more accurately discriminate paralanguage components facilitated more discussion of personally relevant materials by their clients. Such a finding gives additional support for the inclusion of discrimination skill training in counselor education programs.

No significant relationship was found between visual discrimination and length of professional counseling experience, client depth of self exploration or with client perception of the counseling relationship. The instrument used to measure visual discrimination in this study was a new approach. Perhaps it did not adequately measure the desired skills involved in the discrimination of kinesic components.

Finally, this study revealed that the experienced counselors were better at discriminating auditory and visual information than were the non-experienced counselors. The experienced counselors, with a high level of auditory discrimination ability, established more positive relationships with their clients than did the non-experienced subjects. The clients of experienced counselors who had strong auditory discrimination skills were able to discuss more personally meaningful material than were clients of the non-experienced subjects.

Auditory discrimination was found to be a significant influence

in the counseling processes in this study while visual discrimination and length of counseling experience were not.

Limitations

This study involved two relatively small samples of experienced and non-experienced counselors and generalizations cannot be made to counselors in general. The small number of subjects in each group was a definite limitation since such a sample size necessitates a high correlation for significance.

A second limitation is evident in the assessment procedure of the study. Four of the experienced subjects indicated to the researcher that they had previously taken the Inferred Meanings Test - Audio; however, none felt that they were able to recall any test items. In addition, three of the experienced subjects stated that they had seen the correct responses to test items after their first testing. Item recall may have influenced the scores for these subjects.

Finally, the selection process of the subjects was by voluntary participation. Subjects who had little interest in the topic or little confidence in their discrimination abilities may have been reluctant to participate. Thus, there was the chance that the self-selected subjects were better discriminators at the beginning of the study.

Recommendations

Improvements could be made by randomly selecting subjects rather than by using volunteers. This would necessitate having a sufficiently large group of potential subjects from which to select. Unfortunately, this is not usually the case in many counselor education programs. In addition, a larger number of subjects in each sample group would be

beneficial to both the generalizability and the validity of the findings.

To provide control over the variable of education, a time series format might be used. Subjects for the non-experienced group could be selected at the beginning, midpoint and end of their counselor education program while experienced counselors could be chosen at selected time intervals, e.g. two years, five years, eight years, etc. This would help to investigate the changes that may occur in discrimination skills over specific lengths of time and with the inclusion of the educational process.

Further refinement and testing of the Inferred Meanings Test - Video would help to further validate the conclusions reached about the effect of visual discrimination ability.

Conclusion

It can be concluded from the results of this study that: 1) auditory and visual discrimination were related skills in the subjects tested; 2) that the experienced counselors had more skill in both auditory and visual discrimination than did the non-experienced counselors but that the length of their counseling experience apparently did not influence their scores; 3) that experienced counselors with good auditory discrimination skills produced more positive client/counselor relationships as perceived by the client and better facilitated the client's personal exploration; 4) that the non-experienced counselors did not show the equivalent ability to do this; and 5) that the length of the counselors' actual counseling experience was not a significant factor in discrimination skills, client perception of the counseling relationship or client's depth of self exploration.

INFERRED MEANINGS TEST

EXAMPLE: I don't have a headache.

- Someone else does.
- And I mean it!
- But I want your sympathy.
- Simple fact.

1. I don't have a bad heart.

- But I have other troubles.
- I'm not sure about it.
- I resent the question.
- Simple fact.

2. I'm not a nervous person.

- I resent the question.
- I wish I weren't.
- But I have other troubles.
- Simple fact.

3. I have always been the strong one in our family.

- But I am not strong with others.
- But now I am not sure.
- I resent the question.
- Simple fact.

4. I don't have trouble concentrating.

- I did in the past.
- But I have other troubles.
- I know someone who does.
- Simple fact.

5. I have a good appetite.

- I wish I didn't.
- I'm glad I do.
- I'm ashamed of it.
- Simple fact.

6. I can come three times a week.

- I want to.
- If you want me to.
- If I have to.
- Simple fact.

7. I don't think we're different from others.
- But others seem to think so.
 - I resent the question.
 - But we have other problems.
 - Simple fact.
8. We hope you will help us.
- We really have no hope.
 - Even though others have failed.
 - We need help desperately.
 - Simple fact.
9. My husband (wife) and I get along well.
- But we have other problems.
 - We don't get along well with others.
 - We really don't.
 - Simple fact.
10. I enjoy my home life.
- I resent the question.
 - And I miss it.
 - It's really very good.
 - Simple fact.
11. My mother and I get along well.
- But we have other problems.
 - We really don't.
 - But Father and I don't.
 - Simple fact.
12. I have lots of friends.
- But no one really close.
 - I really don't.
 - I resent the question.
 - Simple fact.
13. I wish I could have a better job.
- It's what I really need.
 - Since others are getting them.
 - But I'm afraid I would fail at it.
 - Simple fact.
14. I am happy at home.
- But not at other places.
 - But I feel penned in.
 - It's wonderful.
 - Simple fact.
15. I wish I could have more social life.
- I am anxious to change.
 - But I don't care much if I don't.
 - You must help me.
 - Simple fact.
16. I have to make more money.
- Could you help me?
 - That's part of my trouble.
 - And I want to.
 - Simple fact.

17. I don't think I've been very successful.
- a. But others know I have.
 - b. But it troubles me.
 - c. But I have been happy.
 - d. Simple fact.
18. I think it's mostly my fault.
- a. And I feel guilty about it.
 - b. But not entirely.
 - c. I resent admitting it.
 - d. Simple fact.
19. I don't want any help.
- a. But she does.
 - b. But I'd like something else.
 - c. And I resent the offer.
 - d. Simple fact.
20. I don't want to take your time.
- a. I need your help desperately.
 - b. I can't wait to go.
 - c. Invite me.
 - d. Simple fact.
21. Our parents were good to us.
- a. But others were not.
 - b. But they were too strict.
 - c. They were marvelous.
 - d. Simple fact.
22. Father was a very talented man.
- a. But he was not easy to live with.
 - b. But mother was not.
 - c. And I am proud of him.
 - d. Simple fact.
23. I don't see how that could help.
- a. But maybe it can.
 - b. I am sure it wouldn't.
 - c. But I have a good idea.
 - d. Simple fact.
24. I love my children.
- a. But their father doesn't.
 - b. I hate those brats.
 - c. But they irritate me.
 - d. Simple fact.
25. I like my in-laws.
- a. But my husband doesn't.
 - b. I really dislike them.
 - c. They're wonderful.
 - d. Simple fact.
26. I try to treat the children fairly.
- a. But their father doesn't.
 - b. But it's very hard.
 - c. But they don't appreciate it.
 - d. Simple fact.
27. I didn't steal those rings.
- a. But I stole something else.
 - b. But I know who did.
 - c. I resent the question.
 - d. Simple fact.

28. People seem to like me.
- a. To my surprise.
 - b. But they're only pretending.
 - c. Even if you don't think so.
 - d. Simple fact.
29. He was always a good boy.
- a. Although others thought him bad.
 - b. He did what I told him to.
 - c. Well, most of the time.
 - d. Simple fact.
30. She was always asking about you.
- a. She was nice to do it.
 - b. She doesn't anymore.
 - c. She was nosey.
 - d. Simple fact.
31. They were the most loving of couples.
- a. But I changed all that.
 - b. They certainly were not.
 - c. But they had other troubles.
 - d. Simple fact.
32. She goes to church every Sunday.
- a. But it doesn't seem to make much difference.
 - b. But I don't.
 - c. Church means a lot to her.
 - d. Simple fact.
33. They've always had everything they needed.
- a. They lead a life of luxury.
 - b. It wasn't much but they ought to be satisfied.
 - c. I certainly never did.
 - d. Simple fact.
34. It's too bad they can't agree.
- a. I'm delighted.
 - b. They really do agree.
 - c. I must help them somehow.
 - d. Simple fact.
35. She didn't seem to care what she did.
- a. But I did.
 - b. So, I don't care either.
 - c. She gave up on herself.
 - d. Simple fact.
36. If she wants it that way, I'll agree.
- a. I really disagree.
 - b. My opinion doesn't matter.
 - c. But I don't see why she does.
 - d. Simple fact.
37. It would be a fine thing if you would release her.
- a. It would really be noble.
 - b. Then she'd really go bad.
 - c. But it doesn't matter to me.
 - d. Simple fact.

38. I'm a religious person.
- a. Very deeply so.
 - b. I'm not at all.
 - c. After my own fashion.
 - d. Simple fact.
39. Oh! I'm sure they wanted to help.
- a. They really tried.
 - b. They really didn't care.
 - c. But they loused it up.
 - d. Simple fact.
40. I've been told I'm a good student.
- a. But you expect too much of me.
 - b. And I am.
 - c. So why don't I do better.
 - d. Simple fact.
41. That's not my problem.
- a. But let me tell you what is.
 - b. Don't ask about that.
 - c. Or is it?
 - d. Simple fact.
42. I really don't mind being alone.
- a. But I've just found it out.
 - b. I can't stand being alone.
 - c. I enjoy being alone.
 - d. Simple fact.
43. You had better go now.
- a. Our time is almost up.
 - b. Quickly!
 - c. But come back later.
 - d. Before someone sees us.
44. If I were you, I'd stop worrying about it.
- a. But I'm glad I'm not you.
 - b. I'd do something about it.
 - c. It's really no problem.
 - d. Simple fact.
45. I certainly hope he shows up.
- a. He's really unpredictable.
 - b. I really don't.
 - c. He's one of my favorites.
 - d. Simple fact.
46. You're not my type.
- a. But I could change my mind.
 - b. But you are a nice person.
 - c. But your friend is.
 - d. But let's be friends.
47. Do you think these sessions will help me.
- a. Please tell me "yes."
 - b. Nothing can help me.
 - c. Isn't there something else you can do?
 - d. Aren't you being farfetched?
48. Is there anything else you want to tell me?
- a. You're holding out on me.
 - b. Well, what next?
 - c. I hope that's all.
 - d. I must go now.

APPENDIX B

INFERRED MEANINGS TEST - VISUAL

DIRECTIONS: This is a test of visual discrimination. It will measure how well you can infer correct emotional meanings from a person's facial expressions, body movements and hand gestures.

You will first read a sentence on the monitor. Please read it carefully. It matches the numbered sentence on your answer sheet. The actress will depict that sentence and a specific emotional quality. There is no voice. Study her expressions carefully. She will do it only once. But the tape can be stopped and replayed if you wish to see it again. Please circle the letter of the answer you feel is the best for the enactment. Choose only one answer. There are twenty (20) sentences.

1. I've always been the strong one in our family.
a. Resentful b. Boasting c. Questioning
2. I have a good appetite.
a. Angry b. Guilty c. Proud
3. I don't have a bad heart.
a. Happy b. Puzzled c. Suspicious
4. I have to make more money.
a. Panicky b. Indignant c. Exhausted
5. I don't want any help.
a. Bitter b. Frustrated c. Embarrassed
6. You think I'm scared?
a. Resentful b. Questioning c. Embarrassed
7. I've always loved my children.
a. Boasting b. Hopeless c. Shocked
8. I didn't steal those rings.
a. Shocked b. Angry c. Hopeless

9. Will you release her.
a. Disappointed b. Angry c. Frightened
10. I'm a religious person.
a. Zealous b. Indignant c. Troubled
11. That's not my problem.
a. Resentful b. Bewildered c. Dejected
12. I certainly hope he shows up.
a. Disgusted b. Lonely c. Shy
13. I must stay here alone.
a. Afraid b. Determined c. Helpless
14. You better go now.
a. Suspicious b. Furious c. Hurt
15. You think I'm like that.
a. Curious b. Indignant c. Hurt
16. Someday he'll find out.
a. Questioning b. Furious c. Humiliated
17. I hope no one saw me.
a. Embarrassed b. Scared c. Shy
18. I know he loves me.
a. Happy b. Bragging c. Indignant
19. My hands are always like this.
a. Nervous b. Defiant c. Sad
20. My husband knows that.
a. Amazed b. Annoyed c. Delighted

APPENDIX C

BARRETT-LENNARD RELATIONSHIP INVENTORY Form OS-M-64

Below are listed a variety of ways that one person may feel or behave in relation to another person.

Please consider each statement with reference to your present relationship with your counselor.

Mark each statement in the left margin, according to how strongly you feel that it is true, or not true, in this relationship. Please mark every one. Write in +3, +2, +1, or -1, -2, -3 to stand for the following answers:

+3: Yes, I strongly feel that is true.

+2: Yes, I feel it is true.

+1: Yes, I feel that it is probably true, or more true than untrue.

-1: No, I feel that it is probably untrue, or more untrue than true.

-2: No, I feel it is not true.

-3: No, I strongly feel that it is not true.

-
- _____ 1. He respects me as a person.
 - _____ 2. He wants to understand how I see things.
 - _____ 3. His interest in me depends on the things I say or do.
 - _____ 4. He is comfortable and at ease in our relationship.
 - _____ 5. He feels a true liking for me.
 - _____ 6. He may understand my words but he does not see the way I feel.
 - _____ 7. Whether I am feeling happy or unhappy with myself makes no real difference to the way he feels about me.
 - _____ 8. I feel that he puts on a role in front with me.

- ___ 9. He is impatient with me.
- ___ 10. He nearly always knows exactly what I mean.
- ___ 11. Depending on my behavior, he has a better opinion of me sometimes that he has at other times.
- ___ 12. I feel that he is real and genuine with me.
- ___ 13. I feel appreciated by him.
- ___ 14. He looks at what I do from his own point of view.
- ___ 15. His feeling toward me doesn't depend on how I feel toward him.
- ___ 16. It makes him uneasy when I ask or talk about certain things.
- ___ 17. He is indifferent to me.
- ___ 18. He usually senses or realizes what I am feeling.
- ___ 19. He wants me to be a particular kind of person.
- ___ 20. I nearly always feel that what he says expresses exactly what he is feeling and thinking as he says it.
- ___ 21. He finds me rather dull and uninteresting.
- ___ 22. His own attitudes toward some of the things I do or say prevent him from understanding me.
- ___ 23. I can (or could) be openly critical or appreciative of him without really making him feel any differently about me.
- ___ 24. He wants me to think that he likes me or understands me more than he really does.
- ___ 25. He cares for me.
- ___ 26. Sometimes he thinks that I feel a certain way because that's the way he feels.
- ___ 27. He likes certain things about me, and there are other things he does not like.
- ___ 28. He does not avoid anything that is important for our relationship.
- ___ 29. I feel that he disapproves of me.
- ___ 30. He realizes what I mean even when I have difficulty in saying it.
- ___ 31. His attitude toward me stays the same; he is not pleased with me sometimes and critical or disappointed at other times.

- ___ 32. Sometimes he is not at all comfortable but we go on, outwardly ignoring it.
- ___ 33. He just tolerates me.
- ___ 34. He usually understands the whole of what I mean.
- ___ 35. If I show that I am angry with him, he becomes hurt or angry with me, too.
- ___ 36. He expresses his true impressions and feelings with me.
- ___ 37. He is friendly and warm with me.
- ___ 38. He just takes no notice of some things that I think or feel.
- ___ 39. How much he likes or dislikes me is not altered by anything that I tell him about myself.
- ___ 40. At times I sense that he is not aware of what he is really feeling with me.
- ___ 41. I feel that he really values me.
- ___ 42. He appreciates exactly how the things I experience feel to me.
- ___ 43. He approves of some things I do and plainly disapproves of others.
- ___ 44. He is willing to express whatever is actually in his mind with me, including any feelings about himself or about me.
- ___ 45. He doesn't like me for myself.
- ___ 46. At times he thinks that I feel a lot more strongly about a particular thing than I really do.
- ___ 47. Whether I am in good spirits or feeling upset does not make him feel any more or less appreciative of me.
- ___ 48. He is openly himself in our relationship.
- ___ 49. I seem to irritate and bother him.
- ___ 50. He does not realize how sensitive I am about some of the things we discuss.
- ___ 51. Whether the ideas and feelings I express are "good" or "bad" seems to make no difference to his feeling toward me.
- ___ 52. There are times when I feel that his outward response to me is quite different from the way he feels underneath.
- ___ 53. At times he feels contempt for me.

- ___ 54. He understands me.
- ___ 55. Sometimes I am more worthwhile in his eyes than I am at other times.
- ___ 56. I have not felt that he tries to hide anything from himself that he feels with me.
- ___ 57. He is truly interested in me.
- ___ 58. His response to me is usually so fixed and automatic that I don't really get through to him.
- ___ 59. I don't think that anything I say or do really changes the way he feels toward me.
- ___ 60. What he says to me often gives a wrong impression of his whole thought or feeling at the time.
- ___ 61. He feels deep affection for me.
- ___ 62. When I am hurt or upset he can recognize my feelings exactly, without becoming upset himself.
- ___ 63. What other people think of me does (or would, if he knew) affect the way he feels toward me.
- ___ 64. I believe that he has feelings he does not tell me about that are causing difficulty in our relationship.

APPENDIX D

DEPTH OF SELF-EXPLORATION (Truax, Carkhuff, 1967)

The following is a 9-point scale attempting to define the extent to which patients engage in self-exploration, ranging from no demonstrable intrapersonal exploration to a very high level of self-probing and exploration. Although this basic scale is intended to be a continuum, corrections should be added to determine the final assigned scale value.

STATE 0: No personally relevant material and no opportunity for it to be discussed. Personally relevant material refers to emotionally tinged experiences or feelings, or to feelings or experiences of significance to the self. This would include self-descriptions that are intended to reveal the self to the therapist, and communications of personal values, perceptions of one's relationships to others, one's personal role and self-worth in life, as well as communications indicating upsetness, emotional turmoil, or expressions of more specific feelings of anger, affection, etc.)

STAGE 1: The patient actively evades personally relevant material (by changing the subject, for instance, refusing to respond at all, etc.) Thus, personally relevant material is not discussed. The patient does not respond to personally relevant material even when the therapist speaks of it.

STAGE 2: The patient does not volunteer personally relevant material but he does not actually evade responding to it when the therapist introduces it to the interpersonal situation.

STAGE 3: The patient does not himself volunteer to share personally relevant material with the therapist, but he responds to personally relevant material introduced by the therapist. He may agree or disagree with the therapist's remarks and may freely make brief remarks, but he does not add significant new material.

STAGE 4: Personally relevant material is discussed (volunteered in part or in whole). Such volunteer discussion is done (1) in a mechanical manner (noticeably lacking in spontaneity or as a "reporter" or "observer"); and (2) without demonstration of emotional feeling. In addition, there is simply discussion without movement by the patient toward further exploring the significance of meaning of the material or feeling in an effort to uncover related feelings or material. Both the emotional remoteness and the mechanical manner of the patient make his discussion often sound rehearsed.

STAGE 5: This stage is similar to Stage 4 except that the material is discussed either with feeling indicating emotional proximity or with spontaneity, but not both. (Voice quality is the main cue.)

STAGE 6: In Stage 6 the level of Stage 4 is achieved again, with the additional fact that the personally relevant material is discussed with both spontaneity and feeling. There is clear indication that the patient is speaking with feeling, and his communication is laden with emotion.

STAGE 7: Tentative probing toward intrapersonal exploration. There is an inward probing to discover feelings or experiences anew. The patient is searching for discovery of new feelings which he struggles to reach and hold on to. The individual may speak with many private distinctions or with "personal" meanings to common words. He may recognize the value of this self-exploration but it must be clear that he is trying to explore himself and his world actively even though at the moment he does so perhaps fearfully and tentatively.

STAGE 8: Active intrapersonal exploration. The patient is following a "connected" chain of thoughts in focusing upon himself and actively exploring himself. He may be discovering new feelings, new aspects of himself. He is actively exploring his feelings, his values, his perceptions of others, his relationships, his fears, his turmoil, and his life-choices.

STAGE 9: Stage 9 is an extension of the scale to be used in those rare moments when the patient is deeply exploring and being himself, or in those rare moments when he achieves a significant new perceptual base for his view of himself or the world. A rating at this stage is to be used at the judge's discretion.

APPENDIX E
LETTER TO COUNSELORS

Dear Counselor:

I would like to enlist your cooperation in my dissertation research. I am investigating the relationship between a counselor's ability to discriminate among emotional meanings presented in auditory and visual channels and resultant client satisfaction.

If you would like to participate, the amount of time involved is minimal. It would include:

1. 15-30 minute tape of a counseling session with a current client. I will provide tapes if needed.
2. Client will be asked to complete a Barrett-Lennard Relationship Inventory.
3. You will be asked to take a brief screening test for hearing--three minutes; listen to the Inferred Meanings Test - audio tape - twenty minutes; during the first week.
4. Following week: brief vision screening--three minutes; watch video portion of Inferred Meanings Test--twenty minutes.

I would appreciate your help and will provide feedback to anyone who would like to take a look at the final results. If you can give me a small portion of your time, please let me know below what time would be most convenient for your participation. Thanks so much.

Nancy Spisso

I can participate and will be available _____ (day) at
_____ time. Call me at _____ (phone).

_____ signed

APPENDIX F
TABULATION SHEET

COUNSELOR CODE # _____

AGENCY _____

YEARS EXPERIENCE _____

AGE _____

SEX _____

TESTS:	SCORE
SNELLEN	_____
IMT-V	_____
SIMPLE TONE TEST	_____
IMT-A	_____
BLRI	_____
CDSE	_____

APPENDIX G
COUNSELOR DEMOGRAPHIC DATA

Please complete the information below. Do NOT put your name anywhere on the sheet. Thanks for your help.

CODE # _____ AGENCY _____ DATE _____

SEX: M F

Age: _____

Number of practica or Internships previously completed (students only).

1. Practica _____
2. Internships _____

Number of years of experience as a counselor: _____

Highest degree held _____

In what academic area _____

Counseling orientation: (Circle one or more)

1. Client centered
2. Freudian
3. Behavioral
4. Gestalt
5. Rational-Emotive
6. Reality (Glasser)
7. Existential
8. Other _____

REFERENCES

- Anthony, N. The use of fact and cues in clinical judgements from interviews. Journal of Clinical Psychology, 1968, 24, 37-39.
- Arbuckle, D. S. Clients' perception of counselors personality. Journal of Counseling Psychology, 1956, 3, 93-96.
- Argyle, M. Nonverbal communication in human social interaction. In R. A. Hind (Ed.), Non-verbal communication. Cambridge: Cambridge University Press, 1972.
- Asch, S. E. Social psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1952.
- Auger, E. R. Nonverbal communication of normal individuals and schizophrenic patients in the psychiatric interview. Doctoral dissertation, University of California at Los Angeles, 1969.
- Barrett-Lennard, G. T. Dimensions of perceived therapist response related to therapeutic change. Doctoral dissertation, University of Chicago, 1959.
- Barrett-Lennard, G. T. Dimensions of therapist response as casual factors in therapeutic change. Genetic Psychology Monographs, 1962, 76, No. 43.
- Bartley, S. H. Principles of perception. New York: Harper and Row, 1969.
- Berenson, B. G., & Carkhuff, R. R. (Eds.). Sources of gain in counseling psychology. New York: Holt, Rinehard & Winston, 1967.
- Berger, M. M. Nonverbal communication in group psychotherapy. International Journal of Group Psychotherapy, 1958, 8, 161-178.
- Boomer, D. S. Speech disturbances and body movements in interviews. Journal of Nervous and Mental Disease, 1963, 136, 263-266.
- Boomer, D. S., & Dittman, A. T. Speech rate, filled pause and body movements. Journal of Nervous and Mental Diseases, 1964, 139, 324-327.
- Bosanquet, C. Getting in touch. Journal of Analytical Psychology, 1970, 15, 42-58.

- Brown, D., & Cannaday, M. Counselor, counselee and supervisor ratings of counseling effectiveness. Counselor Education and Supervision, 1969, 8, 113-118.
- Cannon, J. R., & Carkhuff, R. R. Effects of rater level of functioning and experience upon the disclosure of factual conditions. Journal of Consulting and Clinical Psychology, 1968, 33, 189-194.
- Carkhuff, R. R. Helping and human relations: a primer for laymen and professional helpers. Vol. II: Practice and Research. New York: Holt, Rinehart and Winston, 1969.
- Carkhuff, R. R., Kratichvil, D., & Friel, T. The effects of professional training: An evaluation of an integrated didactic and experiential approach. Journal of Consulting Psychology, 1965, 29, 333-336.
- Combs, A. W. A perceptual view of helpers in personality theory and counseling practice. First Annual Conference on Personality Theory and Counseling Practice, Gainesville, University of Florida Press, 1969.
- Combs, A. W., & Soper, D. W. The perceptual organization of effective counselors. Journal of Counseling Psychology, 1963, 10, 222-227.
- Condon, W. S., & Ogston, M. B. Sound film analyses of normal and pathological behavior patterns. Journal of Nervous and Mental Disorders, 1966, 143, 338-347.
- Delaney, D. J. A study of the effectiveness of sensitivity training on the perception of nonverbal communication in counselor education. Doctoral dissertation, Arizona State University, 1966.
- Deutsch, F. Analyses of postural behavior. Psychoanalytic Quarterly, 1947, 16, 195-213.
- Deutsch, F. Correlates of verbal and non-verbal communication in interviews elicited by the associative anamnesis. Psychosomatic Medicine, 1959, 21, 123-130.
- Deutsch, F. Analytic posturology and synesthesiology: some implications, theoretical and clinical aspects. Psychoanalytic Review, 1963, 50, 40-67.
- Deutsch, F. Some principles of correlating verbal and non-verbal communication. In L. A. Gottschalk and A. H. Averback (Eds.), Methods of research in psychotherapy. New York: Appleton-Century-Crofts, 1966.
- Dinges, N., & Oetting, E. R. Interaction distance anxiety in the counseling dyad. Journal of Counseling Psychology, 1972, 19, 146-149.
- Dittman, A. T. Relationship between body movements and moods in interviews. Journal of Consulting Psychology, 1962, 26, 480.

- Dittman, A. T., Parloff, M. B., & Boomer, D. S. Facial and bodily expressions: a study of receptivity of emotional cues. Psychiatry, 1965, 28, 239-244.
- Duncan, S. D., Rice, L. N., & Butler, J. M. Therapists' paralanguage in peak and poor psychotherapeutic hours. Journal of Abnormal Psychology, 1968, 73, 566-570.
- Dunn, L. M. (Ed.). Exceptional children in schools. New York: Holt, Rinehart and Winston, 1973.
- Ekman, P. Body position, facial expressions and verbal behavior during interviews. Journal of Abnormal and Social Psychology, 1964, 68, 295-301.
- Ekman, P., & Friesen, W. V. Non-verbal behavior in psychotherapeutic research. In J. M. Schlien (Ed.), Research in psychotherapy (Vol. III). Washington, D.C.: American Psychological Association, 1968.
- Ekman, P., & Friesen, W. V. Non-verbal leakage and cues to deception. Psychiatry, 1969a, 32, 88-106.
- Ekman, P., & Friesen, W. V. The repertoire of non-verbal behavior. Semiotica, 1969b, 1, 49-98.
- Ekman, P., & Friesen, W. V. Hand movements. Journal of Communication, 1972, 22, 353-374.
- Eldred, S., & Price, D. B. A linguistic evaluation of feeling states in psychotherapy. Psychiatry, 1958, 21, 115-121.
- Exline, R. V. Visual interaction: the glances of power and preference. In J. K. Cole (Ed.), Nebraska symposium on motivation, 1971. Lincoln, Neb.: University of Nebraska Press, 1972.
- Freedman, N. The analysis of movement and behavior during the clinical interview. In A. W. Siegman and B. Pope (Eds.), Studies, 1972, 19, 417-424.
- Gladstein, G. A. Nonverbal communication and counseling/psychotherapy: a review. The Counseling Psychologist, 1974, 3, 34-57.
- Goodstein, D. D., & Grigg, A. E. The use of clients as judges of the counselor's performance. Journal of Counseling Psychology, 1957, 4, 31-36.
- Goodstein, D. D., & Grigg, A. E. Client satisfaction, counseling and the counseling process. Personnel and Guidance Journal, 1959, 38, 19-24.
- Grigg, A. E. Client responses to counselors at different levels of experience. Journal of Counseling Psychology, 1961, 8, 217-223.

- Guilford, J. P. Fundamental statistics in psychology and education. New York: McGraw Hill, 1968.
- Hall, E. T. The silent language. Greenwich, Conn.: Fawcett Publishing Co., 1959.
- Hands, D. R. The effect of high and low empathic responses in utilization of intrapsychic processes. Doctoral dissertation, University of Southern California, 1974.
- Harman, R. L. Nonverbal behavior in counseling. School Counselor, 1971, 18, 189-192.
- Hochberg, J. E. Perception. In D. L. Sills (Ed.), International Encyclopedia of the Social Sciences, Vol. II. New York: Macmillan and Co., 1968.
- Island, D. D. The development and analysis of categories of nonverbal behavior of counselors in filmed interviews. Doctoral dissertation, University of Minnesota, 1966.
- Ivey, A. Microcounseling innovations in interviewing and training. Springfield, Ill.: Charles C. Thomas, 1971.
- Johnson, W., Brown, S. F., Curtis, J. F., Edney, C. W., & Keaster, J. Speech handicapped school children. New York: Harper and Row, 1967.
- Johnson, D. J., & Myklebust, H. R. Learning disabilities. New York: Grune and Stratton, 1967.
- Kanfer, F. H. Verbal rate, eyeblink and content in structured psychiatric interviews. Journal of Abnormal and Social Psychology, 1960, 61, 341-347.
- Krumboltz, J., Thoresen, C., & Zifferblatt, S. Behavioral systems training program, processes and products. Paper presented at the Annual Meeting of the American Educational Research Association, New York City, Feb., 1971.
- Krumboltz, J. D., Varenhorst, B. B., & Thoresen, C. E. Nonverbal factor in the effectiveness of models in counseling. Journal of Counseling Psychology, 1967, 14, 412-418.
- Kurtz, R. R., & Gummon, D. L. Differential approaches to the measurement of therapist empathy and their relationship to therapeutic outcomes. Journal of Consulting and Clinical Psychology, 1972, 39, 106-115.
- Lassen, C. L. Interaction distance and the initial psychiatric interview: a study in proxemics. Doctoral dissertation, Yale University, 1969.

- Lerner, J. W. Children with learning disabilities. Boston: Houghton-Mifflin, 1971.
- Lewin, K. K. Nonverbal cues and transference. Archives of General Psychiatry, 1965, 12, 391-394.
- Levitt, E. In J. R. Davitz (Ed.), The communication of emotional meaning. New York: McGraw Hill, 1964.
- Linden, J. R., Stone, S. C., & Shertzer, B. Development and evaluation of an inventory for rating counseling. Personnel and Guidance Journal, 1965, 44, 267-276.
- Loeb, F. F. The microscopic film analyses of the function of a recurrent behavior pattern in a psychotherapy session. Journal of Nervous and Mental Disease, 1968, 147, 605-518.
- Mahl, G. F. Disturbances and silences in the patient's speech in psychotherapy. Journal of Abnormal and Social Psychology, 1956, 53, 1-15.
- Mahl, G. F. Measures of two expressive aspects of a patient's speech in two psychotherapy interviews. In L. A. Gottschalk (Ed.), Comparative psycholinguistic analysis of two psychotherapy interviews. New York: International Universities Press, 1961.
- Mahl, G. F. The lexical and linguistic levels in the expression of the emotions. In P. Knapp (Ed.), Expression of the emotions in man. New York: International Universities Press, 1963.
- Mahl, G. F. Gestures and body movements in interviews. In J. Schlien (Ed.), Research in psychotherapy, Vol. III. Washington, D.C.: American Psychological Association, 1968.
- Markel, C. The reliability of coding paralanguage: pitch, loudness, and tempo. Journal of Verbal Learning and Verbal Behavior, 1964, 4, 306-308.
- Matarazzo, J. D., & Wiens, A. N. The interview: research on its anatomy and structure. Chicago: Aldine-Atherton, 1972.
- Matarazzo, J. D., Weins, A. N., Matarazzo, R. G., & Saslow, G. Speech and silence behavior in clinical psychotherapy and its laboratory correlates. In J. Schlein (Ed.), Research in psychotherapy, Vol. III. Washington, D.C.: American Psychological Association, 1968.
- McGinnies, E. Emotionality and perceptual defense. Psychological Review, 1949, 56, 244-251.
- McQuown, N. A. Linguistic transcription and specification of psychiatric interview materials. Psychiatry, 1957, 20, 79-86.
- Meharabian and Ferris. Inference of attitude from nonverbal communication in two channels. Journal of Consulting Psychology, 1967, 31, 248-252.

- Mills, D. H., & Zytowski, D. G. Helping relationships: a structural analysis. Journal of Counseling Psychology, 1967, 14, 193-197.
- Morgenstern, D. P. An investigation of Rogers' theory of congruance through measures of self-other-perception. Doctoral dissertation, Temple University, 1967.
- Nacht, S. The nonverbal relationship in psycho-analytic treatment. International Journal of Psychoanalysis, 1963, 44, 328-333.
- Newman, L. (in preparation). Counselor characteristics and training as related to the process of empathy and its manifestations. Doctoral dissertation, University of Florida.
- Newman, G. E., & Hall, R. Acting out--an indication for psychodrama. Group Psychotherapy and Psychodrama, 1971, 24, 3-4.
- Nichols, R. G., & Stevens, L. A. Are you listening? New York: McGraw Hill, 1957.
- Panek, D. M., & Martin, B. The relationship between GSR and speech disturbance in psychotherapy. Journal of Abnormal and Social Psychology, 1959, 58, 402-405.
- Pare, D. D. Accurate empathy scale: relative or absolute? Doctoral dissertation, University of Florida, 1970.
- Patterson, C. H. Client expectations and social conditions. Personnel and Guidance Journal, 1958, 37, 136-138.
- Patterson, C. H. Counseling and psychotherapy: theory and practice. New York: Harper, 1959.
- Pittenger, R. E., & Smith, H. L. A bases for some contributions of linguistics to psychiatry. Psychiatry, 1957, 20, 61-78.
- Pohlman, E. Changes in client preferences during counseling. Personnel and Guidance Journal, 1961, 40, 340-343.
- Pohlman, E., & Robinson, F. P. Client reaction to some aspects of the counseling situation. Personnel and Guidance Journal, 1960, 38, 546-551.
- Pope, B., & Siegman, A. W. The effect of therapist activity level and specificity on patient productivity and speech disturbance in the initial interview. Journal of Consulting Psychology, 1962, 26, 489.
- Pope, B., & Siegman, A. W. Relative and verbal behavior in the initial interview. In A. W. Siegman and B. Pope (Eds.), Studies in dyadic communication. New York: Pergamon Press, 1972.
- Reddy, W. B. The qualitative aspect of feedback in learning empathy. Counselor Education and Supervision, 1970, 9, 176-181.

- Reik, T. Listening with the third ear. New York: Pyramid Books, 1948.
- Rogers, C. R. Client centered therapy. Boston: Houghton-Mifflin Co., 1951.
- Rogers, C. R. The necessary and sufficient conditions of therapeutic personality change. Journal of Consulting Psychology, 1957, 21, 95-103.
- Rogers, C. R. Communication: its blocking and facilitation. In A. E. Kuenze (Ed.), The phenomenological problem. New York: Harper and Brothers, 1959.
- Rogers, C. R. The therapeutic relationship: recent theory and research. Australian Journal of Psychology, 1965, 17, 95-108.
- Rogers, C. R. The process equation of psychotherapy. In J. J. Hott and T. Tomlinson (Eds.), New directions in client-centered therapy. Boston: Houghton-Mifflin Co., 1970.
- Rogers, C. R., & Dymond, R. F. (Eds.). Psychotherapy and personality change. Chicago: University of Chicago Press, 1954.
- Rotter, J. C. The perceptual characteristics of elementary, secondary, and community college counselors. Doctoral dissertation, Wayne State University, 1971.
- Rubenstein, L., & Cameron, D. Electronic analysis of nonverbal communication. Comprehensive Psychiatry, 1968, 9, 200-208.
- Sainsbury, P. Gestural movements during the psychiatric interview. Psychosomatic Medicine, 1955, 17, 458-469.
- Schlossberg, S. The description of facial expression in terms of two dimensions. Journal of Experimental Psychology, 1952, 44, 229-237.
- Schutz, W. C. Here comes everybody. New York: Harper and Row, 1971.
- Segall, M. N., Campbell, D. T., & Herkovitz, M. J. The influence of culture on perception. New York: Bobbs-Merrill Co., Inc., 1966.
- Shapiro, J. G. Agreement between channels of communication on inter-viewers. Journal of Consulting Psychology, 1966, 30, 535-538.
- Shapiro, J. G. Relationship between visual and auditory cues of therapeutic effectiveness. Journal of Clinical Psychology, 1968, 24, 236-239.
- Shapiro, J. G. Visual and audio cues of therapeutic effectiveness. Manuscript, Arkansas Rehabilitation Research and Training Center, 1967.
- Shapiro, J. G., Foster, C. P., & Powell, T. Facial and bodily cues of genuineness, empathy and warmth. Journal of Clinical Psychology, 1968, 24, 233-26.

- Sheriff, M. The psychology of social norms. New York: Harper, 1936.
- Solley, C. M., & Murphy, G. Development of the perceptual world. New York: Basic Books, Inc., 1960.
- Straus, E. The primary world of the senses. London: Collier-MacMillan Limited, 1963.
- Sundberg, N. D. The relationship of therapist skill and experience to knowledge of other people. Doctoral dissertation, University of Minnesota, 1952.
- Thompson, A., & Miller, A. Steps toward outcome criteria in counseling and psychotherapy. 1970, ERIC ED 070,010.
- Truax, C. B. A scale for the measurement of accurate empathy. Psychiatric Institute Bulletin, Wisconsin Psychiatric Institute, University of Wisconsin, 1961 1, 12.
- Truax, C. B. A tentative scale for the measurement of depth of intrapersonal exploration (DX). Discussion Papers, Wisconsin Psychiatric Institute, University of Wisconsin, 1962, 29.
- Truax, C. B. Therapist empathy, warmth, and genuineness and patient personality change in group psychotherapy: a comparison between interaction unit measures, time sample measures and patient perception measures. Journal of Clinical Psychology, 1966, 22, 225-229.
- Truax, C. B., & Carkhuff, R. R. Towards effective counseling psychotherapy. Chicago: Aldine Publishing Co., 1967.
- Truax, C. B., Wargo, D. D., Carkhuff, R. R., & Tunnel, B. T. Client perception of therapist empathy, warmth and genuineness and therapeutic outcome in group counseling with juvenile delinquents. Unpublished manuscript, Arkansas Rehabilitation Research and Training Center, University of Arkansas, 1966.
- Truax, C. B., Wargo, D. D., Frank, J. E., Imber, S. D., Butler, B. C., Hoehn-Sarrie, R., Nash, C. H., & Sone, A. R. Therapist empathy, genuineness, and warmth and patient therapy outcome. Journal of Consulting Psychology, 1966, 30, 395-401.
- Truax, C. B., Wargo, D. D., Tunnel, B. T., & Glenn, A. W. Patient perception of therapist empathy, warmth and genuineness and therapeutic outcome in outpatient group therapy. Unpublished manuscript, Arkansas Rehabilitation Research and Training Center, University of Arkansas, 1966.

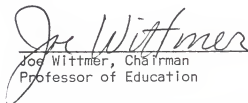
BIOGRAPHICAL SKETCH

Nancy Ann Slicner Spisso was born January 31, 1947, in Perth Amboy, New Jersey, the middle child of Edward and Mary Slicner. She attended public schools in South Plainfield, New Jersey, and received a Bachelor of Science degree in Health and Physical Education from Douglass College in 1968. After her marriage to Ward A. Spisso, she completed a masters degree in Guidance and Counseling from the University of Delaware in 1971, a Specialist in Education in 1974 and a Doctor of Philosophy degree in Counselor Education from the University of Florida in 1975.


She has been an elementary school counselor, mental health counselor, director of a group treatment home and is presently the Director of Outpatient Services of the Child Development Center in Pensacola, Florida.

Mrs. Spisso holds memberships in American Personnel and Guidance Association, the Council for Exceptional Children and the American Psychological Association.

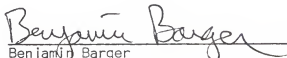
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Joe Wittmer, Chairman
Professor of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Larry Loesch
Assistant Professor of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Benjamin Barger
Professor of Psychology

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 1975

Dean, College of Education

Dean, Graduate School